



agntho's



AgnTho's Product Catalogue 5

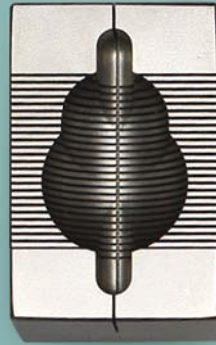


TABLE of CONTENTS

<p>SCISSORS</p> 	<p>Surgical Scissors 6 Iris Scissors 9 Spring Scissors 11 Stille 17 Supercut Scissors 24 Tungsten Carbide 27 Ceramic Cut 31 Other Scissors 34</p>	<p>ANIMAL ACCESSORIES</p> 	<p>Feeding Needles 112 Animal ID 116 Shavers 120 Restrainers 121</p>
<p>FORCEPS & HEMOSTATS</p> 	<p>Dumont Forceps 38 Dressing Forceps 45 Tissue Forceps 47 Iris Forceps 49 Splinter Forceps 52 Other Forceps 53 Hemostatic Forceps 58</p>	<p>LABORATORY ACCESSORIES</p> 	<p>Instrument Trays 124 Instrument Care 126 Tubing 128 Balances 130 Measuring Instruments 131 Books 133</p>
<p>RETRACTORS & CLIPS</p> 	<p>Retractors 62 Clamps & Clips 66</p>	<p>SURGICAL EQUIPMENT</p> 	<p>Homeothermic Systems 136 Heating Plates 137 Thermometers 138 Sterilizers 139 Lights & Magnifiers 140 Surgical Tables 143 Cautery 145 Surgical Accessories 145</p>
<p>CUTTING & MANIPULATORS</p> 	<p>Rongeurs 70 Bone Cutters 71 Scalpels 74 Micro Knives 78 Hooks, Spatulas & Punches 80 Pins & Probes 84</p>	<p>ANAESTHESIA</p> 	<p>Anaesthesia Units 148 Scavenger 150 Induction Chamber 150 Anaesthesia Masks 151 Accessories 152</p>
<p>WOUND CLOSURE</p> 	<p>Needle Holders 88 Needle Holders T/C 92 Suture Clips 96 Ethicon 98 Tissue Adhesive 104 Silk & Needles 104</p>	<p>PUMPS</p> 	<p>Syringe Pumps 154 Peristaltic Pumps 158 Implantable Pumps 159</p>
<p>ALZET</p> 	<p>Alzet Osmotic Pumps 108</p>	<p>NEUROSCIENCE</p> 	<p>Stereotaxic Equipment 162 Microdialysis 166 Injection Systems 171 Drills & Burrs 172 Syringes 173 Matrices 174</p>



SCISSORS

Scissors has always been a vital instrument for the researcher. We have chosen the best instruments from several different manufacturers to have a wide yet specialized selection of scissors that fit the modern researcher.



SURGICAL SCISSORS	6
IRIS SCISSORS	9
SPRING SCISSORS	11
STILLE	17
SUPERCUT SCISSORS	24
TUNGSTEN CARBIDE	27
CERAMIC CUT	31
OTHER SCISSORS	34

SURGICAL SCISSORS



STANDARD STRAIGHT

cm:	Blunt/Blunt	Sharp/Blunt	Sharp/Sharp
10,5	03-020-105	✓ 03-022-105	✓ 03-024-105
11,5	03-020-115	03-022-115	03-024-115
13	03-020-130	03-022-130	03-024-130
14,5	03-020-145	03-022-145	03-024-145
15,5	03-020-155	03-022-155	03-024-155
16,5	03-020-165	03-022-165	03-024-165
17,5	03-020-175	03-022-175	03-024-175
18,5	03-020-185	03-022-185	03-024-185
20	03-020-200	03-022-200	03-024-200



STANDARD CURVED

cm:	Blunt/Blunt	Sharp/Blunt	Sharp/Sharp
10,5	03-025-105	03-027-105	03-029-105
11,5	03-025-115	03-027-115	03-029-115
13	03-025-130	✓ 03-027-130	03-029-130
14,5	03-025-145	03-027-145	03-029-145
15,5	03-025-155	03-027-155	03-029-155
16,5	03-025-165	03-027-165	03-029-165
17,5	03-025-175	03-027-175	03-029-175
18,5	03-025-185	03-027-185	03-029-185
20	03-025-200	03-027-200	03-029-200

✓ = Popular models



MAYO

cm:	Straight	Curved
14,5	03-040-145	03-041-145
15	03-040-150	03-041-150
17	03-040-170	03-041-170
23	03-040-230	03-041-230



MAYO-STILLE

cm:	Straight	Curved
15	03-044-150	03-045-150
17	03-044-170	03-045-170
19	03-044-190	03-045-190



MAYO-NOBLE

cm:	Straight	Curved
17	308-176-170	308-177-170



METZENBAUM DELICATE

cm:	Straight	Curved
14,5	03-080-145	03-081-145



STRABISMUS

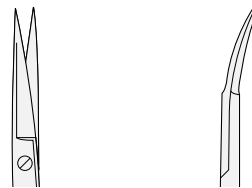
cm:	Straight	Curved
11,5	03-336-115	03-337-115



METZENBAUM

cm:	Straight	Curved
11,5	411-244-110	411-245-110
14,5	03-070-145	03-071-145

IRIS SCISSORS



BONN

cm:	Straight	Curved
8,5	411-614-080	411-615-080



STANDARD

cm:	Straight	Curved	Angled
9	✓ 03-320-090	03-321-090	
10,5	03-320-105	03-321-105	
11,5	03-320-115	03-321-115	03-325-115
12	03-320-120	03-321-120	

✓ = Most Popular



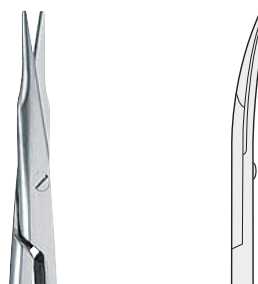
INSTRUMENT CARE

See page 126



STEVENS SHARP

cm:	Straight	Curved
9	03-332-090	
11,5	03-330-115	03-331-115



STEVENS BLUNT

cm:	Straight	Curved
11,5	03-332-115	03-333-115

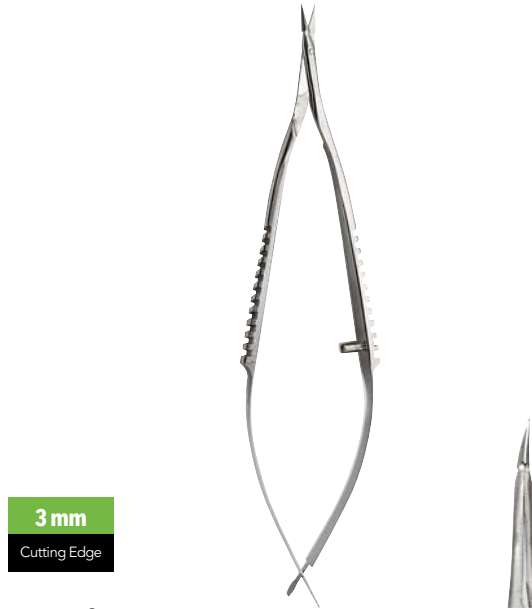
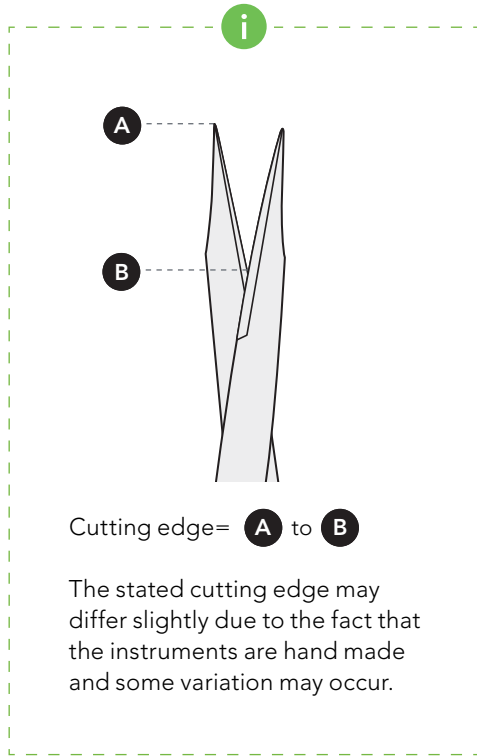
The finger loops can be enlarged to almost any size



LARGE LOOPS

cm:	Straight/Sharp
9,5	14106-09

SPRING SCISSORS



3 mm
Cutting Edge

VANNAS MINI

cm:	Straight	Curved
8	05-118-085	05-119-085



4 mm
Cutting Edge

VANNAS

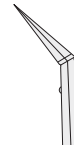
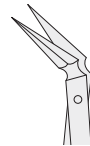
cm:	Straight	Curved	Angular	Angled up
8,5	✓ 05-220-085	05-223-085	05-225-085	05-227-085

✓ Model 05-220-085 is our most popular Spring Scissors.





7 mm
Cutting Edge



VANNAS TÜBINGEN

cm:	Straight	Curved	Angular	Angled up
8,5	✓ 05-230-085	05-231-085	05-233-085	05-235-085

✓ = Most Popular



Model 15000-03 has the smallest blades. They are ideal for work when precision is needed and space is restricted

2 mm
Cutting Edge

VANNAS MICRO



cm:	Straight	Curved
8	15000-03	15000-04



2,5 mm
Cutting Edge

VANNAS MICRO



cm:	Straight	Curved
8	15000-08	15001-08



✓ Model 15000-00 is our most popular Vannas Scissors. The long tapered tips are ideal for cutting vessel walls or when thin blades are useful.

3 mm
Cutting Edge

VANNAS

cm:	Straight	Curved
8	✓ 15000-00	15000-10



5 mm
Cutting Edge

VANNAS TÜBINGEN

cm:	Straight	Curved
8,5	15003-08	15004-08

Tip Ø: 0,1 mm



HQ
HIGH QUALITY

5 mm
Cutting Edge

MORIA EXTRA FINE

cm:	Straight	Curved
8	15396-00	15396-01

Tip Ø: 0,15 mm



HQ
HIGH QUALITY

7 mm
Cutting Edge

MORIA VANNAS WOLFF SPRING

cm:	Straight	Curved
8	15370-52	15370-50

These Moria scissors have the finest tip diameter. Hand fashioned using 40x magnification, these tips are especially useful when incising vessel walls for catheter insertion.



Round handles, sharp/sharp

5 mm

Cutting Edge



VANNAS

cm:	Straight	Curved
12	309-222-120	309-223-120
15	309-222-150	309-223-150



7 mm

Cutting Edge



7,5 mm

Cutting Edge



MICRO DISSECTION

cm:	Straight	Angled
9	05-036-090	05-037-090



9,5 mm
Cutting Edge



12,5 mm
Cutting Edge

WESTCOTT

cm:	Straight	Curved
11,5	309-102-110	309-103-110



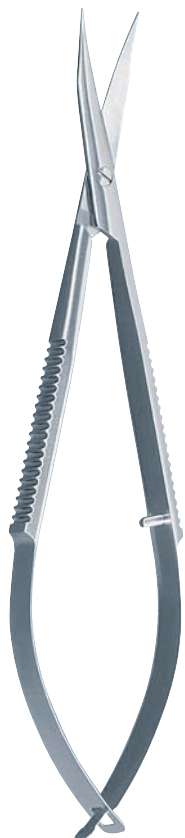
13,5 mm
Cutting Edge



12,5 mm
Cutting Edge

NOYES

cm:	Straight	Angular
12	05-142-120	05-143-120



10,5 mm
Cutting Edge

WESTCOTT



cm:	Curved/Sharp	Curved/Blunt
11	05-149-110	05-151-110



10 mm
Cutting Edge

CASTROVIEJO



cm:	Curved/Sharp	Curved/Blunt
10	05-161-100	05-163-100



Surgical perfection. For life.

STILLE

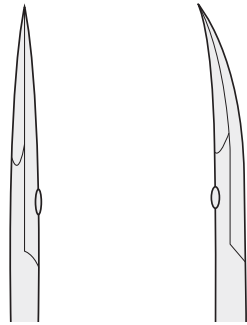
ABOUT STILLE

The Surgical Perfection Company STILLE is one of the oldest medical device companies in the world. STILLE develop, produce and sell high-quality surgical instruments worldwide, and has done so for more than 170 years. STILLE produces the finest handmade surgical instruments in the world, meeting the highest demands of surgical perfection.

Precision, durability and feel are characteristic qualities of all STILLE instruments. STILLE is the only medical instrument maker in the world that still manufactures instruments from tubular steel in their own forge. The vast majority are handcrafted by our highly skilled instrument makers in Eskilstuna, west of Stockholm, Sweden. The instruments journey from a rod of stainless steel to a finished instrument is a long one, involving multiple stages. STILLE's unique method of crafting its instrument materials, and its usage of only the very highest-grade steels, give our instruments their unique feel and durability.

These instruments are sold with a 30 year warranty, offer a unique delicate design, industry-leading durability and a unique feel, which has made STILLE a well-known and highly respected supplier by surgeons throughout the world.



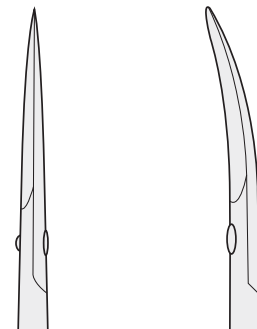


DELICATE IRIS

cm:	Straight	Curved
9,5	101-8001	101-8003

SURGICAL SCISSORS

Stille is renowned for its unique, light and well-balanced surgical scissors. Stille's scissors confer maximum cutting strength in all types of soft tissue with minimal force, not just when new, but after many years of use.



IRIS SUPERCUT

cm:	Straight	Curved
10	101-8010-1	101-8015-1

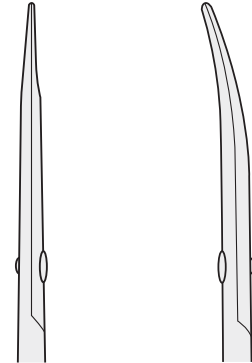
SUPERCUT XE

30 years ago STILLE invented the benchmark in surgical scissors – the original STILLE SuperCut Scissors with unparalleled performance for all types of soft tissue. STILLE's SuperCut scissors have specially designed cutting surfaces – a combination of scissor and knife edges; they cut themselves forward with high precision right to the tip.

They provide maximum cutting power with minimal force and produce a perfect cut. STILLE has now taken the SuperCut further by changing the material in the coating, making it more environmental friendly and at the same time more resistant to wear and tough sterilization processes. XE as in Extended durability and Eco-efficiency.

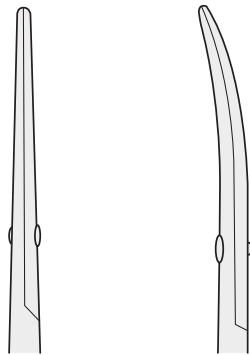


**STEVENS
SUPERCUT**



cm:	Straight	Curved
12,5	101-8166-1	101-8167-1

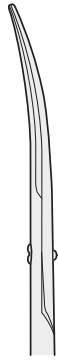
**BABY METZENBAUM
SUPERCUT**



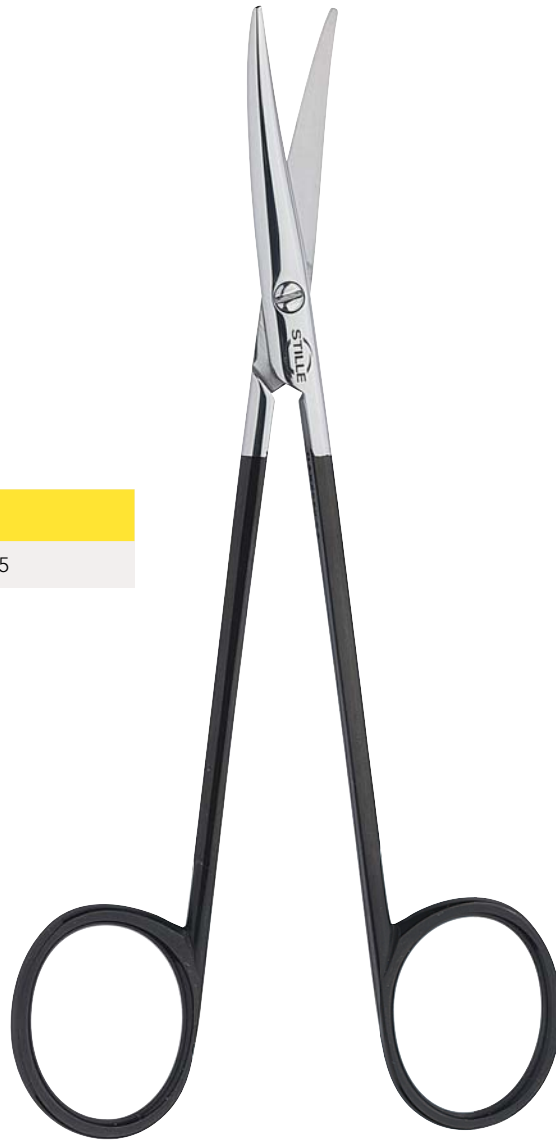
cm:	Straight	Curved
12,5	101-8161	101-8163



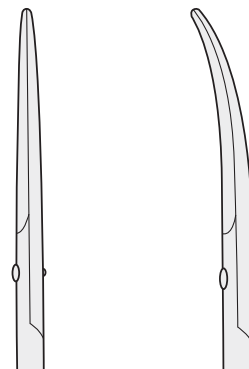
**METZENBAUM
GRACIL SUPERCUT**



cm:	Curved	
15	101-8173-15	



**MAYO STILLE
SUPERCUT**

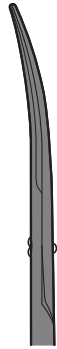


cm:	Straight	Curved
15	101-8081-15	101-8083-15

*"Probably the best scissors
in the world"*

**METZENBAUM
DIAMOND SUPERCUT**

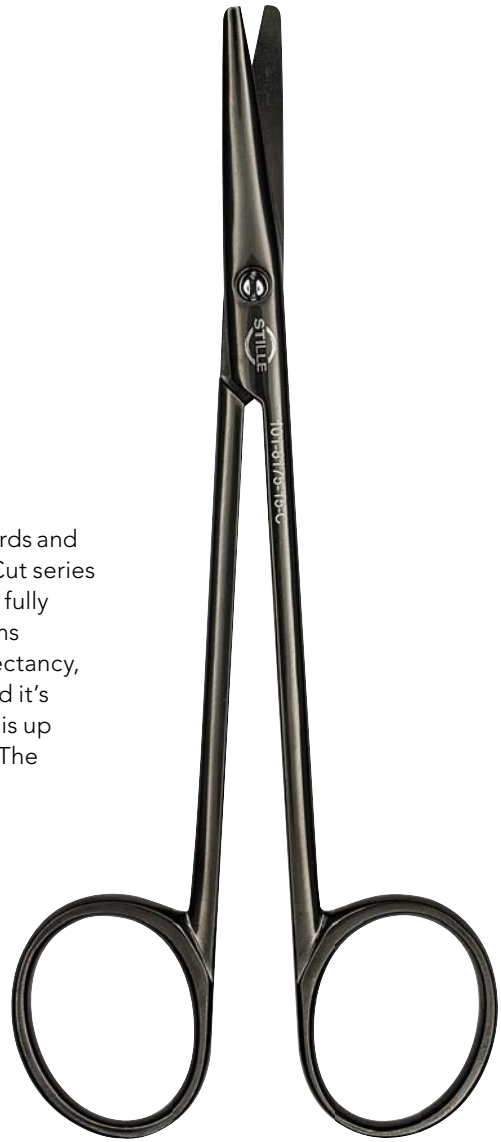
cm:	Curved
12,5	101-8163-C
15	101-8175-15-C



DIAMOND SUPERCUT SCISSORS

The STILLE Diamond SuperCut Scissors redefine the industry standards and expand the limits in instrument performance. The Diamond SuperCut series of scissors are handmade to perfection in Sweden. The scissors are fully coated with a new proprietary diamond-like-layer which outperforms anything you have experienced. It not only increases the life expectancy, it reduces the need of sharpening, is more resistant to corrosion and it's more environmental friendly. The Diamond SuperCut coating layer is up to 50% harder compared to Tungsten Carbide and Ceramic layers. The harder the layer the better durability and longer service-intervals.

We simply call it Surgical Perfection.



9 mm
Cutting Edge

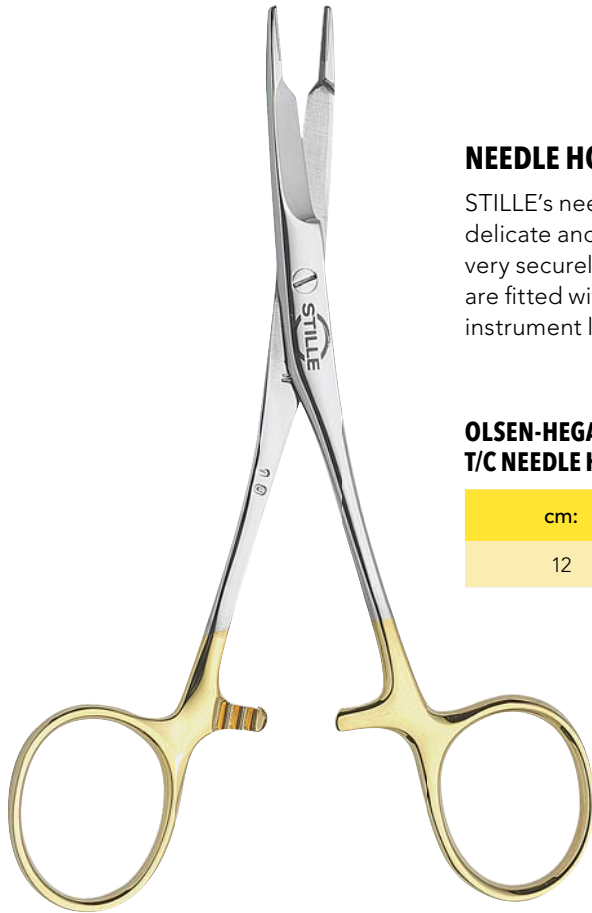
VANNAS SUPERCUT

cm:	Straight
15	117-A110-15

VANNAS MICROSCISSORS

All STILLE Vannas scissors feature SuperCut blades for maximum cutting power with minimal effort and precision all the way to the tip. The soft edges protect sensitive tissue, sutures and surgical gloves.





NEEDLE HOLDERS

STILLE's needle holders are easily recognized by their delicate and soft design, which helps to hold the needle very securely. The gold handles indicated that the jaws are fitted with Tungsten Carbide inserts to prolong the instrument life.

OLSEN-HEGAR T/C NEEDLE HOLDERS

cm:	With Scissors
12	104-15590-121

MICRO NEEDLE HOLDERS

Holds even the smallest suture needles in a gentle but firm grip with minimal finger pressure. The tips feature Diamond Jaws for increased wear resistance. Suitable for suture sizes 6-0 or smaller.

NEEDLE HOLDERS, DIAMOND JAWS

cm:	With Lock
15	117-C120-15





ETHICON SUTURES

See page 98



SUTURE REMOVAL SCISSORS

cm:	Curved
13,5	101-8584

This Stille Suture Scissors is manufactured in stainless steel grade 1.4117 which is relatively hard steel that can withstand a lot of wear. The Scissors has specially designed blades to cut sutures, withstand slippage and remain sharp through extended suture cutting without becoming dull.



FORCEPS

Feel and balance characterize Stille's forceps. During manufacturing, the spring tension in the instrument is adjusted in order to obtain the tension and feel required to precisely control the instrument without tiring the researchers hand.

ADSON DRESSING FORCEPS

cm:	Serrated
12	102-9020



DELICATE IRIS FORCEPS

cm:	Serrated
10	102-9460

SUPERCUT

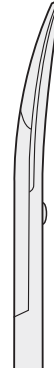
The Super Cut scissors has a special design that delivers precise and accurate cuts, even through the toughest tissue. The Super Cut technique is made out of two unique blades, one with a micro serrated edge that holds the tissue and prevents slippage. The other blade has a razor sharp edge that provides the cutting.

All Super Cut scissors are identified with their black handles.



IRIS SCISSORS

cm:	Straight	Curved
9	307-336-090	307-337-090
11	307-336-110	307-337-110



STEVENS

cm:	Straight	Curved
11	307-358-110	307-359-110



METZENBAUM

cm:	Straight	Curved
11,5	307-276-110	307-277-110
15	307-276-150	307-277-150



SURGICAL

cm:	Straight	Curved
14,5	307-106-140	307-107-140



MAYO

cm:	Straight	Curved
14,5	307-156-140	307-157-140
17	307-156-170	307-157-170



TUNGSTEN CARBIDE

When you require a high quality instrument, Tungsten Carbide adds several advantages to your instrument, whether there is a need for a hard and durable sharpness or you are looking for a long-lasting cost effective instrument. This special alloy prolongs the sharpness of the instrument several times compared to conventional instruments.

This feature, compared to the extra initial cost for a Tungsten Carbide instrument, will provide a cost effective solution for your surgical instruments. The properties of this alloy have also benefited the special cross patterns that can be found on the needle holders, rendering a much more secure needle grip. Tungsten Carbide inserts are only applied (usually glued or welded) to the working surface of the instrument which provide the right flexibility to the instruments but with a superior hardness where the action is.



IRIS SCISSORS

cm:	Straight	Curved
9	14568-09	14569-09
11,5	04-520-115	04-521-115



METZENBAUM

cm:	Straight	Curved
11,5	411-932-110	411-933-110
14,5	04-320-145	04-325-145

SURGICAL STRAIGHT



cm:	Blunt/Blunt	Sharp/Blunt	Sharp/Sharp
14,5	04-120-145	04-122-145	04-124-145





**SURGICAL
CURVED**

cm:	Blunt/Blunt	Sharp/Blunt	Sharp/Sharp
14,5	04-125-145	04-127-145	04-129-145



MAYO

cm:	Straight	Curved
14	04-220-140	04-225-140
17	04-220-170	04-225-170



MAYO-STILLE

cm:	Straight	Curved
15	04-250-150	04-251-150
17	04-250-170	04-251-170



UNIVERSAL

cm:	Wire Scissors
12	04-721-120

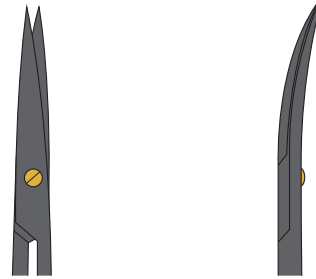


CERAMIC CUT

The Ceramic Cut scissors are one of the best scissors available, using Super Cut technology combined with Tungsten Carbide inserts coated with ceramics. Since ceramic is one of the hardest materials on earth this coating provides an exceptional hard and smooth surface. This special treatment gives the scissors a high resistance to corrosion and chemicals.

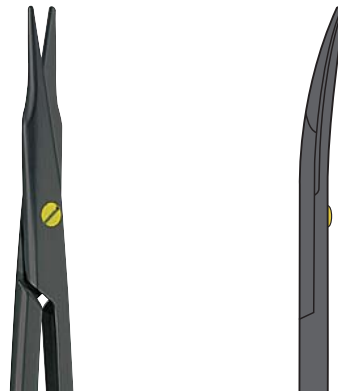
The special matte black ceramic coating avoids any reflection and provides a low friction cut which minimizes tissue damage. This is one of the best scissors available on the market; use your Ceramic Cut scissors for your most uncompromising work.





IRIS SCISSORS

cm:	Straight	Curved
9	14958-09	14959-09
11,5	14958-11	14959-11



STEVENS

cm:	Straight/Blunt	Curved/Blunt
11	307-356-110K	307-357-110K



METZENBAUM

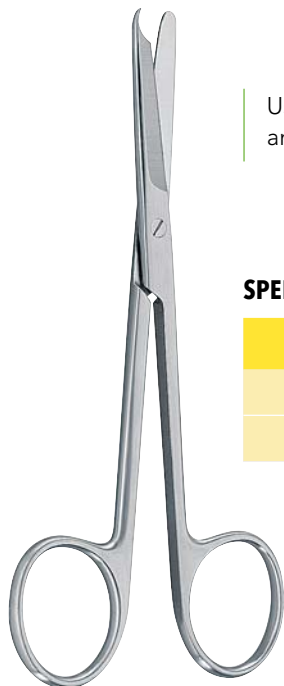
cm:	Straight	Curved
11,5	411-244-110K	411-245-110K
14,5	03-070-145K	03-071-145K



MAYO

cm:	Straight/Blunt	Curved/Blunt
14,5	03-040-145K	03-041-145K
17	03-040-170K	03-041-170K

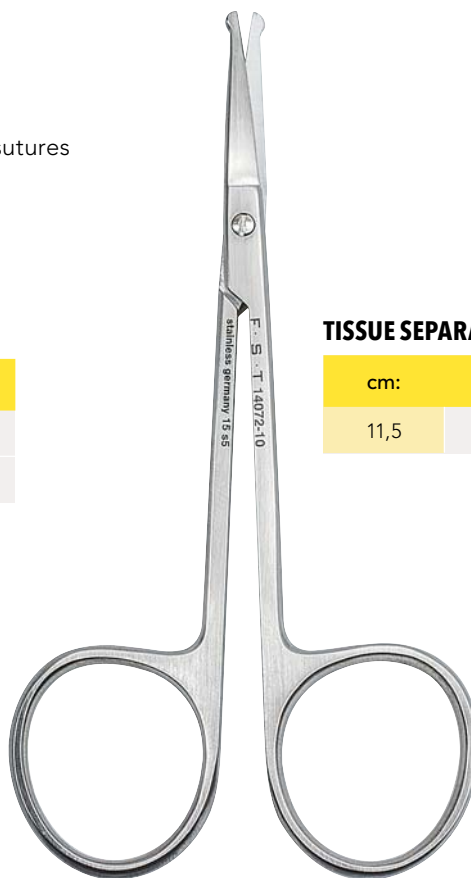
OTHER SCISSORS



Used for cutting stiches/sutures and tail PCR sampling

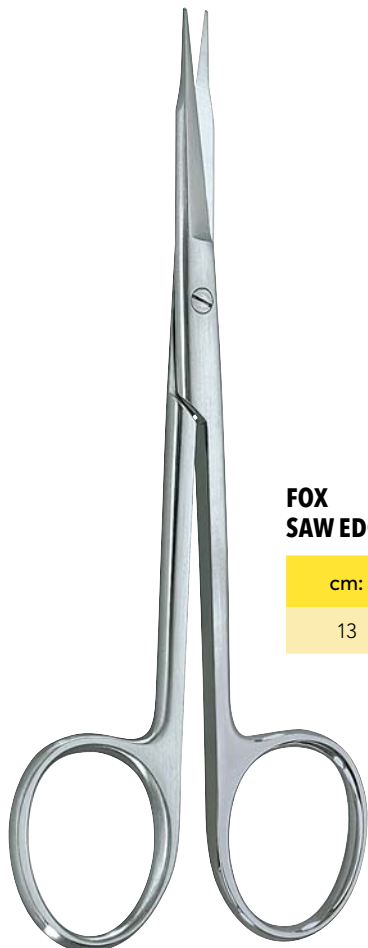
SPENCER

cm:	Straight
9	03-720-090
13	03-720-130



TISSUE SEPARATOR

cm:	Blunt/Blunt
11,5	14072-10



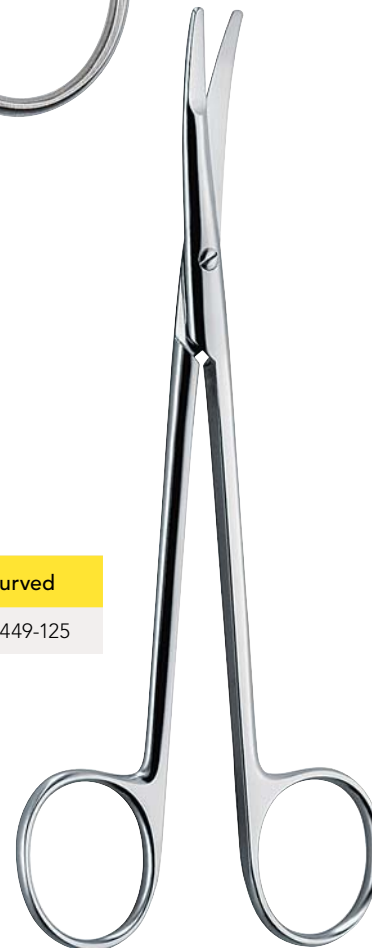
FOX SAW EDGE

cm:	Straight	Curved
13	03-412-130	03-417-130



KILNER

cm:	Curved
12,5	03-449-125





BONE SCISSORS

cm:	Straight
19	54-120-190
23	54-120-230



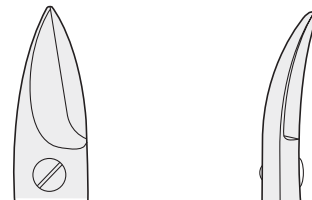
UNIVERSAL, SERRATED

cm:	Wire Scissors
12	03-741-120



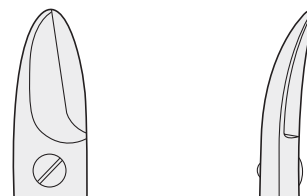
**BONE SCISSORS
BEEBEE, SHARP**

cm:	Straight	Curved
10,5	03-744-105	03-745-105



**BONE SCISSORS
BEEBEE, BLUNT**

cm:	Straight	Curved
10,5	03-748-105	03-749-105



Artery scissors with one ball shaped tip to avoid damage to underlying tissue. Ball Ø: 1,3 mm



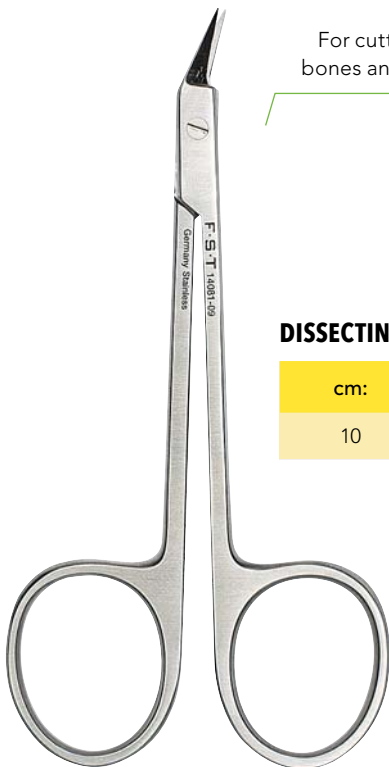
BONE SCISSORS EXTRA STRONG

cm:	Straight	Curved
9	03-880-090	03-881-090



ARTERY SCISSORS

cm:	Straight
9	14086-09
11,5	14080-11



For cutting fine bones and tissue

DISSECTING SCISSORS

cm:	Fine Angled Blades
10	14081-09



DISSECTING SCISSORS

cm:	Strong Angled Blades
10	03-373-100SB

FORCEPS & HEMOSTATS

The forceps should be viewed as an extension to the researchers thumb and index finger as it holds or releases with the same sensitivity as the fingertips. Forceps comes in many different sizes and shapes each with its specific purpose and usage.



DUMONT FORCEPS	38
DRESSING FORCEPS	45
TISSUE FORCEPS	47
IRIS FORCEPS	49
SPLINTER FORCEPS	52
OTHER FORCEPS	53
HEMOSTATIC FORCEPS	58

DUMONT FORCEPS

Dumont SA located in Switzerland has been producing the world's finest microsurgical forceps for more than 135 years. This is a handcrafting process where each forceps point is made and adjusted by hand, part by part. There are several different alloys for each forceps model, each one with its own characteristics. These are the most commonly used within the medical field.

DUMONT MATERIALS

HARD

Ceramic	INOX forceps with a ceramic PVD-thin-film-coating, giving the instrument superior hardness, longer lifetime and scratch resistance. Withstands temperature up to 300°C, biocompatible and easy to clean and sterilize.
Carbon Steel	Is an extremely hard alloy which ensures very strong tips. It easily rusts, is magnetic and cannot be autoclaved.
INOX	A medical stainless steel that provides good resistance to corrosion, and temperature up to 400°C. This alloy is magnetic and suitable for autoclave sterilisation.
Dumostar	Dumont's finest alloy. This patented Dumont alloy is more elastic and more resistant to corrosion than the finest stainless steel. It is resistant to minerals, organic acids as well as to salt. Dumostar is 100% non magnetic and resistant up to 500°C.
Dumoxel	This alloy is patented by Dumont and offers the best resistance to corrosion, mineral and organic acids due to high concentration of molybdenum and chromium. Dumoxel is 95% non magnetic, resistant up to 400°C and suitable for autoclave sterilisation.
Titanium	Totally resistant to corrosion from nitric acid, chlorides and salt water. Titanium is a soft material with 40% less weight and more flexible than INOX. It is 100% non magnetic and resistant to temperatures around 430°C.

SOFT

DUMONT STYLES

Dumont forceps comes in different numerical series, whereas the Dumont #5 is by far the most common style of forceps. Below is a short guide to the different Dumont styles.

DUMONT #2 – Straight forceps with wide yet fine tips.

DUMONT #3 – Straight forceps with larger and courser tips.

DUMONT #4 – Similar to #5 but with slightly larger shanks.

DUMONT #5 – The most popular Dumont forceps model that comes in different styles:

- **#55:** Similar to #5 but with lighter shanks giving the forceps lighter closing action
- **#5/45:** 45° angled tips
- **#5/90:** 90° angled tips
- **#5SPSF:** The finest tips produced by Dumont

DUMONT #7 – Curved forceps with large radius. As the #5 it also comes in different versions and materials.

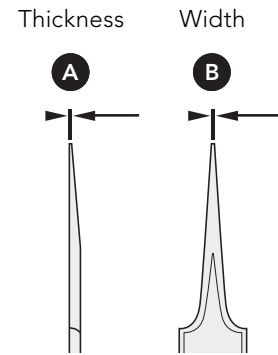
Our catalogue only shows the most frequently sold Dumont forceps which we always carry in stock; please contact us if you cannot find what you are looking for.

DUMONT TIPS

The Dumont tips in this chapter are measured in AxB in mm, see picture.

Dumont #5 is the most widely sold forceps and is available with different tips. These are the most commonly used tips, each available in different alloys.

- Standard Tip
- Biologie Tip
- Superfine Tip



DUMONT#5

Art. No:	Description:	Material:	Tip AxB:	Length, cm:
11251-10*	Standard Tips	Carbon	0,04 x 0,08	11
0108-5-PS	Standard Tips	INOX	0,06 x 0,10	11
0103-5-PS	Standard Tips	Dumoxel	0,06 x 0,10	11
0209-5-PS	Biologie Tips	Dumostar	0,01 x 0,05	11
✓ 0208-5-PS	Biologie Tips	INOX	0,01 x 0,05	11
11252-30	Biologie Tips	Dumoxel	0,01 x 0,05	11
11252-40	Biologie Tips	Titanium	0,01 x 0,05	11
0208-5SPSF-PO	Superfine Tips	INOX	0,005 x 0,025	11
0304-5-PO**	Standard Tips	INOX	0,06 x 0,10	11

✓ = Most Popular

*Not autoclavable. **Economy quality



DUMONT#5, RIBBED SIDES

Art. No:	Description:	Material:	Tip AxB:	Length, cm:
3308-5-PS	Biologie tips	INOX	0,01 x 0,05	11



DUMONT #5 WA

Art. No:	Description:	Material:	Tip AxB:	Length, cm:
10108-5-SM	Standard tips	INOX	0,06 x 0,10	12
10208-5-SM	Biologie tips	INOX	0,02 x 0,05	12

A high precision forceps through draw-rolled springs and highly improved stability. A dome shaped end without soldering allows for easy cleaning and prevents build up of biofilm residues. A forceps with top ergonomics and constant pressure allows for better feel and fatigue-free stress.

DUMONT – CERAMIC COATED

These Ceramic Coated forceps provide several additional features to the very popular Dumont.

The Ceramic Coating provides increased hardness, longer lifetime and anti-corrosiveness. The black coating also ensures no reflections under the microscope as well as scratch-resistance with high biocompatibility.



DUMONT 5K

Art. No:	0208-5-K
Description:	Biologie tips
Material:	INOX
Surface:	CERAMIC
Tip A x B, mm:	0,01 x 0,05
Length, cm:	11



DUMONT 7K

Art. No:	0208-7-K
Description:	Biologie tips
Material:	INOX
Surface:	CERAMIC
Tip A x B, mm:	0,04 x 0,07
Length, cm:	11,5



DUMONT 55

Art. No:	0208-55-PS
Description:	Light fine shanks, biologie tip
Material:	INOX
Tip A x B, mm:	0,01 x 0,05
Length, cm:	11



DUMONT 55

Art. No:	0209-55-PS
Description:	Light fine shanks, biologie tip
Material:	Dumostar
Tip A x B, mm:	0,01 x 0,5
Length, cm:	11



DUMONT 5A

Art. No:	11253-21
Description:	Obligue, biologie tips
Material:	INOX
Tip A x B, mm:	0,08 x 0,13
Length, cm:	11



✔ 0208-5/45-PS is our most popular 5/45

DUMONT 5/45

Art. No:
✔ 0208-5/45-PS
Description: Tip 45°, biologie tips
Material: INOX
Tip A x B, mm: 0,01 x 0,05
Length, cm: 11



DUMONT 5/45

Art. No:
11251-35
Description: Standard Tip
Material: Dumoxel
Tip A x B, mm: 0,06 x 0,10
Length, cm: 11



DUMONT 5/45

Art. No:
0203-5/45-PS
Description: Tip 45°, biologie tips
Material: Dumoxel
Tip A x B, mm: 0,01 x 0,05
Length, cm: 11



DUMONT 5/90

Art. No:
11253-29
Description: Tips 90°, biologie tips
Material: INOX
Tip A x B, mm: 0,06 x 0,10
Length, cm: 11



DUMONT 3

Art. No:
11231-30
Description: Standard tips
Material: Dumoxel
Tip A x B, mm: 0,10 x 0,17
Length, cm: 12

Tapered and sturdy shanks.



DUMONT 3C

Art. No:
11231-20
Description: Standard tips
Material: Dumoxel
Tip A x B, mm: 0,10 x 0,17
Length, cm: 11

Tapered and sturdy shanks.

✔ Model 0208-7-PS is our most popular curved Dumont



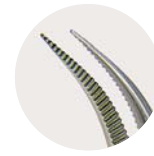
DUMONT 7

Art. No:
✔ 0208-7-PS
Description: Curved, biologic tips
Material: INOX
Tip A x B, mm: 0,03 x 0,07
Length, cm: 11,5



DUMONT 7B

Art. No:
11270-20
Description: Standard tips, with inside tip serration
Material: INOX
Tip A x B, mm: 0,10 x 0,17
Length, cm: 11



DUMONT 7

Art. No:
0203-7-PS
Description: Curved biologic tips
Material: Dumoxel
Tip A x B, mm: 0,03 x 0,07
Length, cm: 11,5



DUMONT 7

Art. No:
11271-30
Description: Curved standard tip
Material: Dumoxel
Tip A x B, mm: 0,10 x 0,17
Length, cm: 11,5



DUMONT N7

Art. No:
11267-30
Description: Curved Self-Closing
Material: Dumoxel
Tip A x B, mm: 0,12 x 0,20
Length, cm: 11,5

Consistent pressure at tips with correctly tensioned "cross-over" shanks with matched tips.



DUMONT 4

Art. No:
11241-30
Description: Broad shanks, standard tips
Material: Dumoxel
Tip A x B, mm: 0,08 x 0,13
Length, cm: 11



DUMONT 4

Art. No:
11242-40
Description: Biologie tips
Material: Dumoxel
Tip A x B, mm: 0,04 x 0,06
Length, cm: 11



DUMONT SS

Art. No:
11203-23
Description: Long narrow shanks standard tips
Material: INOX
Tip A x B, mm: 0,12 x 0,20
Length, cm: 13,5

The tips are smooth on the inside for a gentle grip. Applying full strength will not separate tips and a strong hold on the smallest specimen is ensured.



DUMONT SS

Art. No:
11200-33
Description: Long narrow shanks standard tips
Material: Dumoxel
Tip A x B, mm: 0,06 x 0,10
Length, cm: 13,5

The tips are smooth on the inside for a gentle grip. Applying full strength will not separate tips and a strong hold on the smallest specimen is ensured.



DUMONT 2

Art. No:
11223-20
Description:
Laminectomy forceps
Material:
INOX
Tip A x B, mm:
0,02 x 0,40
Length, cm:
12

These forceps can be used to break off delicate bone during mouse laminectomies as well as fine skull bone removal.



DUMONT 15A

Art. No:
11215-02
Description:
Forceps cutter, for cartilage and bones
Material:
Epoxy Coated Carbon Steel
Cutting Edge:
6 mm
Jaw Opening:
2,5 mm
Length, cm:
11,5



N5 SELF-CLOSING

Art. No:
11262-30
Description:
Standard Tips
Material:
Dumoxel
Tip A x B, mm:
0,06 x 0,10
Length, cm:
11

Ideal for lifting and holding EM grids. Consistent pressure at tips. Correctly tensioned "crossover" shanks come to a microscopically matched point.



MINI DUMONT 3

Art. No:
11200-10
Description:
Mini forceps, thin tips
Material:
INOX
Tip A x B, mm:
0,07 x 0,12
Length, cm:
7



MINI DUMONT 4

Art. No:
11200-12
Description:
Mini forceps, thin tips
Material:
INOX
Tip A x B, mm:
0,06 x 0,14
Length, cm:
7



MINI DUMONT 5

Art. No:
11200-14
Description:
Mini forceps, thin tips
Material:
INOX
Tip A x B, mm:
0,05 x 0,09
Length, cm:
8,2

DRESSING FORCEPS



STANDARD



cm:	Straight	Curved	Straight/Slender
10,5	08-020-105	08-023-105	08-030-105
11,5	08-020-115	08-023-115	08-030-115
13	08-020-130	08-023-130	08-030-130
14,5	08-020-145	08-023-145	08-030-145
16	08-020-160	08-023-160	08-030-160
18	08-020-180	08-023-180	08-030-180
20	08-020-200	08-023-200	08-030-200
25	08-020-250	08-023-250	08-030-250
30	08-020-300	08-023-300	08-030-300



DELICATE



cm:	Straight	Curved	Straight with Pin
13	08-032-130	08-033-130	08-040-130
14,5	08-032-145	08-033-145	08-040-145



MODEL USA

cm:	Standard	Slender
12	08-050-120	08-056-120
13	08-050-130	08-056-130
14,5	08-050-145	08-056-145



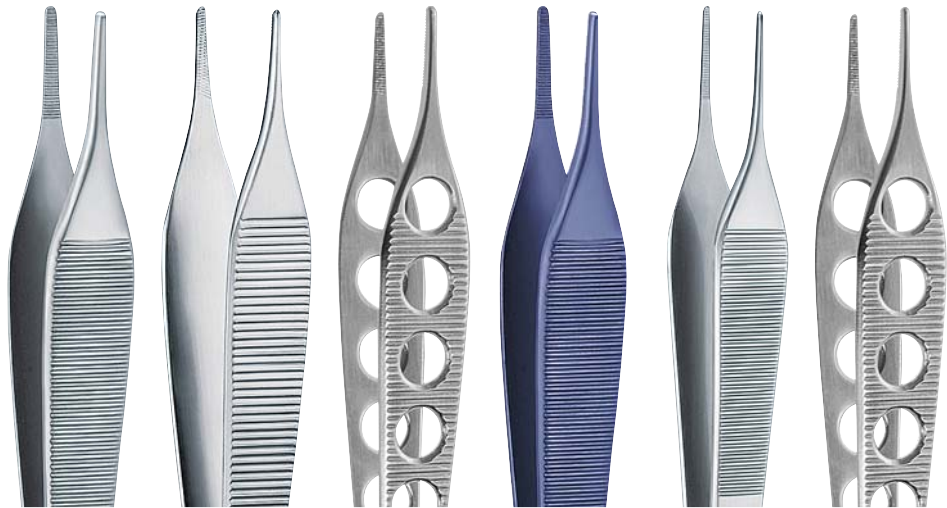
STILLE

cm:	Slender
11,5	08-068-115
13	08-068-130
15	08-068-150



ADSON

cm:	Standard	Cross-Serrated	Light Weight	Titan
12	08-060-120	08-060-121	08-060-120LW	11-060-120
15	08-060-150			



MICRO-ADSON

cm:	Standard	Light Weight
12	08-062-120	08-062-120LW
15	08-062-150	

TISSUE FORCEPS



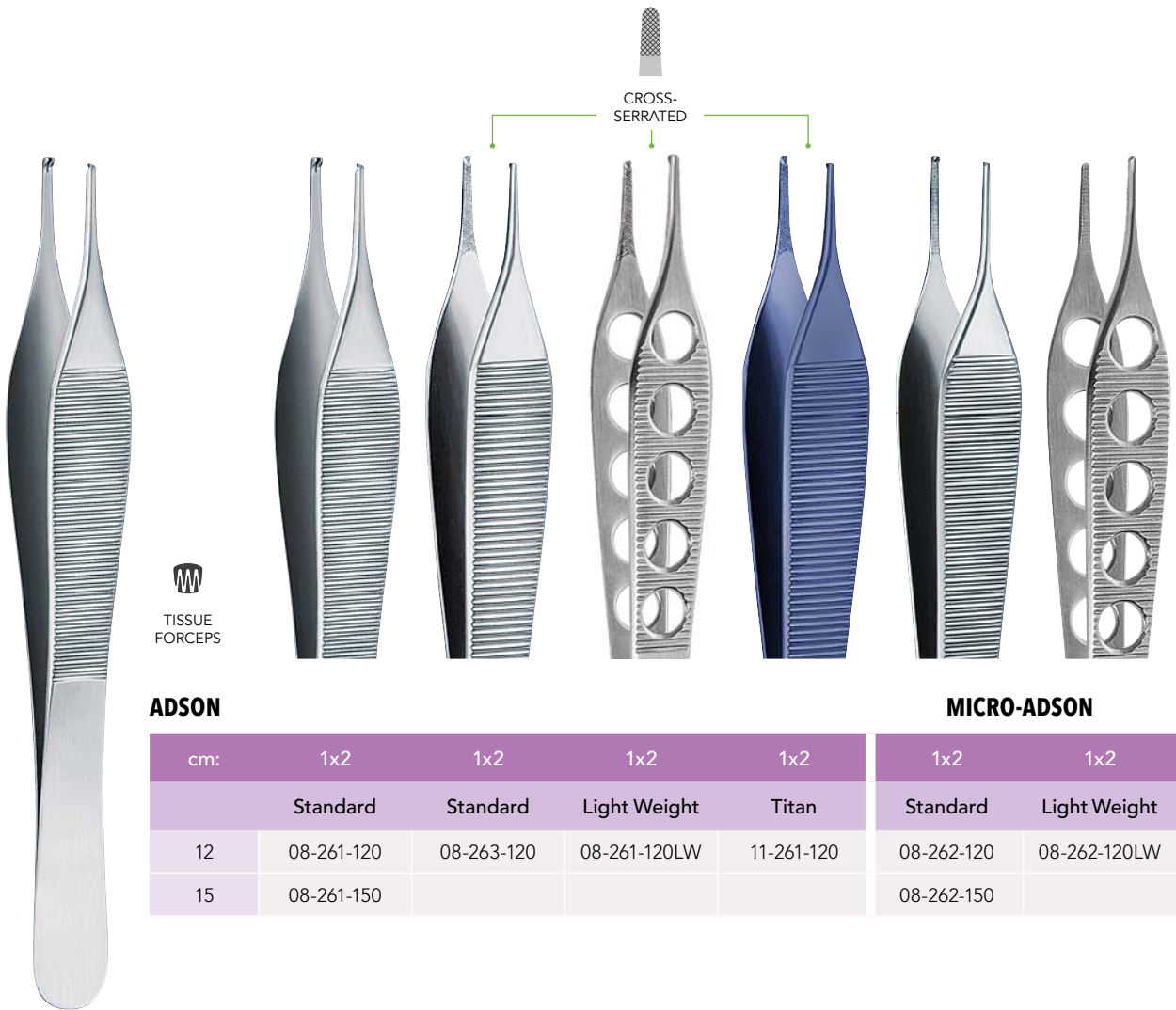
STANDARD

cm:	1x2	2x3	3x4	4x5
10,5	08-221-105	08-222-105		
11,5	08-221-115	08-222-115		
13	08-221-130	08-222-130	08-223-130	08-224-130
14,5	08-221-145	08-222-145	08-223-145	08-224-145
16	08-221-160	08-222-160	08-223-160	08-224-160
18	08-221-180	08-222-180		08-224-180
20	08-221-200	08-222-200	08-223-200	
25	08-221-250	08-222-250	08-223-250	08-224-250
30	08-221-300	08-222-300	08-223-300	



DELICATE

cm:	Straight 1x2	Straight with Pin 1x2	Curved with Pin 1x2
13	08-231-130	08-241-130	08-247-130
14,5	08-231-145	08-241-145	08-247-145

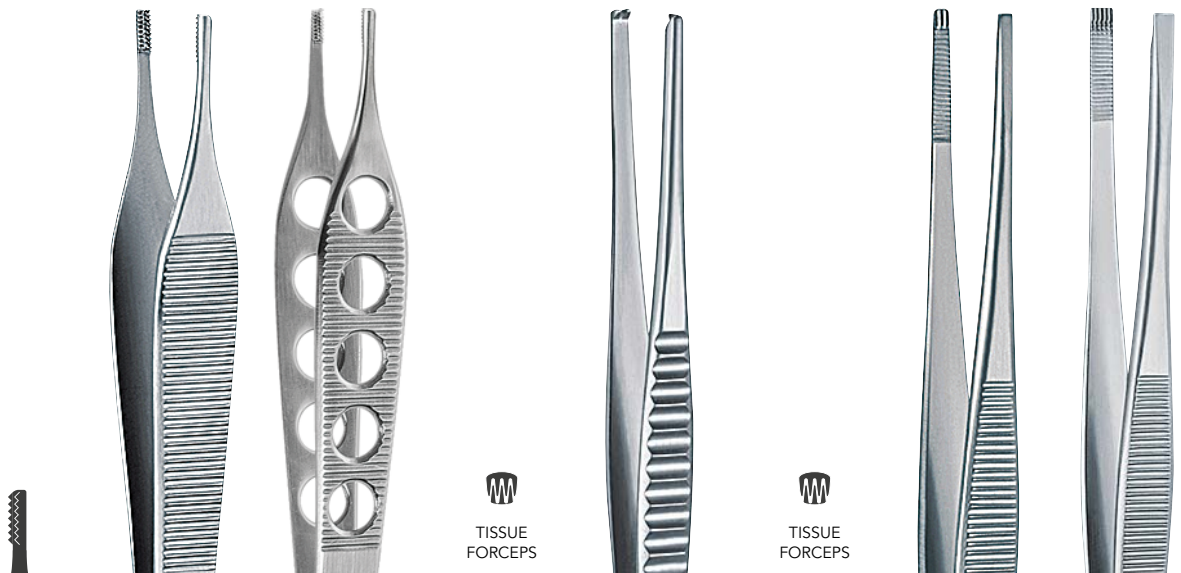


ADSON

cm:	1x2	1x2	1x2	1x2
	Standard	Standard	Light Weight	Titan
12	08-261-120	08-263-120	08-261-120LW	11-261-120
15	08-261-150			

MICRO-ADSON

cm:	1x2	1x2
	Standard	Light Weight
12	08-262-120	08-262-120LW
15	08-262-150	



ADSON-BROWN

cm:	Standard	Light Weight
12	08-267-120	08-267-120LW
15	08-267-150	

MODEL USA

cm:	1x2
12	08-251-120
13	08-251-130
14,5	08-251-145

ADLERKREUTZ

cm:	2x3	4x5
13		08-278-130
15	08-276-150	08-278-150
20	08-276-200	08-278-200

IRIS FORCEPS



GRAEFE

cm:	Tip, mm:	Straight	Curved	Strong Curved
7	0,5	08-510-005	08-513-005	08-517-005
7	1	08-510-010	08-513-010	08-517-010
10	0,3		08-515-003	08-519-003
10	0,5	08-512-005	✓ 08-515-005	08-519-005
10	1	08-420-100	08-421-100	08-423-100
12	1	08-512-120	08-515-120	08-519-120
13	1	08-512-130	08-515-130	08-519-130

✓ = Most Popular



GRAEFE, 1x2

cm:	Tip, mm:	Straight	Curved	Strong Curved
7	0,5	08-520-005	08-523-005	08-527-005
7	1	08-520-010	08-523-010	08-527-010
10	0,5	08-522-005	08-525-005	08-529-005
10	1	08-425-100	08-427-100	08-429-100



STEVENS



cm:	Straight	Light Curved	Strong Curved
10,5	08-530-105	08-531-105	08-533-105



TISSUE
FORCEPS

STEVENS



cm:	Straight 1x2	Light Curved 1x2	Strong Curved 1x2
10,5	08-534-105	08-535-105	08-537-105



INSTRUMENT CARE

See page 126




TISSUE
FORCEPS

BISHOP-HARMON

cm:	1x2	
8,5	08-564-085	08-566-085




TISSUE
FORCEPS

BISHOP-HARMON DELICATE

cm:	1x2	
8,5	08-568-085	08-570-085

SPLINTER FORCEPS



cm:	Smooth	Smooth	Serrated	Serrated
8	08-450-080	08-451-080	08-452-080	08-453-080
9	08-450-090	08-451-090	08-452-090	08-453-090
10,5	08-450-105	08-451-105	08-452-105	08-453-105
11,5	08-450-115	08-451-115	08-452-115	08-453-115
13	08-450-130	08-451-130	08-452-130	08-453-130
14,5	08-450-145	08-451-145	08-452-145	08-453-145



cm:	Smooth	Smooth	Self-Closing
10	08-438-100	08-439-100	08-440-100

OTHER FORCEPS

Our finest Teeth Forceps



TISSUE
FORCEPS

MODEL-BONN

cm:	Straight 1x2
7	08-554-070



TISSUE
FORCEPS

FUCHS

cm:	Straight 1x2
7	08-575-070

These MORIA forceps have been expertly finished under 40x magnification and have the most finely executed points. They are extremely light and balanced and the shanks are specially designed with an arch which ensures maximum force to the tips. The tips close flat for 6 mm from the points to give a large holding area, and the bottom portion is slim to reduce their weight.



0,005 x
0,01mm
Tip dimensions



0,06 x
0,1mm
Tip dimensions



MORIA

cm:	Straight	Curved	Straight	Curved
11	11370-40	11370-42		
13			11399-80	11399-87



**JEWELLER'S
FORCEPS**

cm:	No. 1	No. 4	No. 5	No. 7
11,0		08-960-004	08-960-005	
11,5				08-960-007
12,0	08-960-001			



CILIA

cm:	Smooth	Serrated
9	08-790-090	08-792-090



DOUGLAS

cm:	Slender	Wide
9	08-794-090	08-796-090





COVER GLASS FORCEPS

cm:	Self-Closing	Kühne
10	08-953-090	08-951-100



MERIAM

cm:	Serrated	Smooth
16	10-841-160	10-843-160



PERRY

cm:	Serrated	Smooth
13	10-853-130	10-855-130



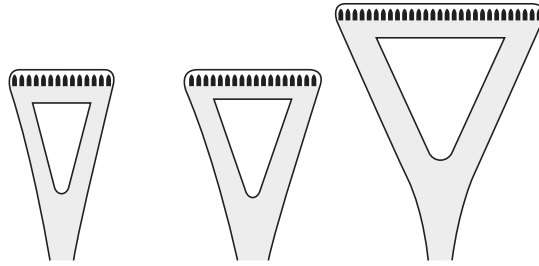
RUSS. MODEL

cm:	Serrated
15	08-350-150
20	08-350-200
25	08-350-250



COLLIN-DUVAL

cm:			
20	08-360-014	08-360-018	08-360-027



Autoclavable Silicone Tips

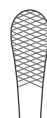


RODENT FORCEPS

Art. No:	Description:
11036-20	Mouse Handling Forceps, 21 cm
11036-90	Silicone Replacement Tips, pkg=2

RODENT HANDLING FORCEPS

These long forceps can have a variety of usage, but are specifically designed for handling small rodents. The long handles ensures a safe working distance from the animal, one with replaceable silicone tips for maximum hold and minimizing animal discomfort and one in INOX for easy sterilization and versatility.



WANGENSTEEN

cm:	
23	08-150-230





VESSEL CANNULATION FORCEPS

These fine Vessel Cannulation Forceps are designed specifically for insertion of small catheters into vessels. The hollow jaws ensure a secure insertion without damaging the fine tube. There are three different forceps depending on the desired O.D. of the tubing and length of forceps.

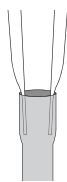
VESSEL CANNULATION

cm:	0,5-1,0mm tube O.D.	0,35mm tube O.D.
11,0	00574-11	11280-11
13,5	00571-13	



VESSEL DILATOR

This special forceps has been highly modified for vesseldilation. The tips are designed to minimize damage to the vessel.



VESSEL DILATOR

cm:	
11	06-54-313



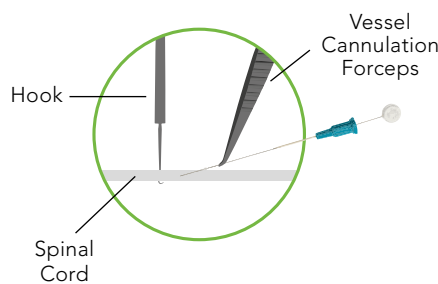
SMALL BLOOD VESSEL CANNULATION SYSTEM

This biocompatible micro cannula system with trocar is designed for fast and easy insertion in to small blood vessels. The tubing has a bulb for securing the tubing cannula to the vessel by tie-in with a thread. The cannula has a female luer hub for attachment to a syringe.

Gauge: 27
O.D: 0,33 mm
I.D: 1,6 mm

VESSEL CANNULATION

cm:	
8	18000-10



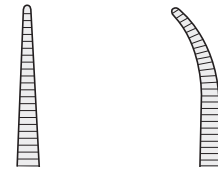
SPINAL HOOK

See page 80

HEMOSTATIC FORCEPS



✔ 13-021-100 is our most popular hemostatic forceps



HARTMANN

cm:	Straight	Curved
10	13-020-100	✔ 13-021-100

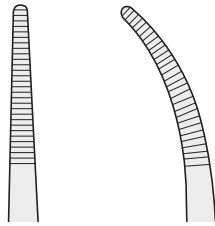


With Teeth
1X2



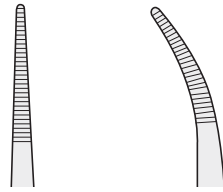
MICRO-MOSQUITO

cm:	Straight		Curved	
	Straight	Curved	Straight	Curved
10	13-028-100	13-029-100	13-030-100	13-031-100
12	13-028-120	13-029-120	13-030-120	13-031-120



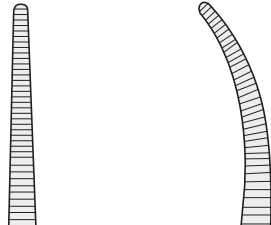
KELLY

cm:	Straight	Curved
14	13-078-140	13-079-140
16	13-082-160	13-083-160



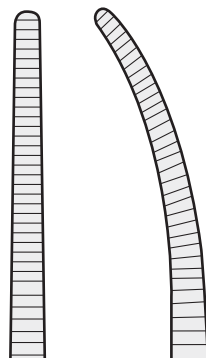
PROVIDENCE HOSPITAL

cm:	Straight	Curved
14	13-072-140	13-073-140



CRILE

cm:	Straight	Curved
14	13-090-140	13-091-140



ROCHESTER PÉAN

cm:	Straight	Curved
13	13-200-130	13-201-130
14	13-200-140	13-201-140
16	13-200-160	13-201-160
18	13-200-180	13-201-180
20	13-200-200	13-201-200
22	13-200-220	13-201-220
24	13-200-240	13-201-240
26	13-200-260	13-201-260
30	13-200-300	13-201-300



BACKHAUS

cm:	Art. No:
8	17-251-080
11	17-251-110
13	17-251-130



BABY-MIXER

cm:	Curved
14	312-471-140

RETRACTORS & CLIPS

A well balanced retractor aids in the researchers work but is also important to engage the tissue gently without causing trauma. With this in mind our retractors and clips have been carefully selected for the small animal researchers needs.



RETRACTORS	62
CLAMPS & CLIPS	66

RETRACTORS



JANSEN

cm:	Sharp	Blunt
10	25-040-100	25-042-100



ALM

cm:	Max Spread:	Sharp	Blunt
7	58 mm	25-020-070	25-024-070
10	74 mm	25-020-100	25-024-100



WEITLANER

cm:	Sharp	Blunt	Sharp	Blunt
10,5	25-050-105	25-052-105		
13			25-060-130	25-062-130





HOLTZEIMER

cm:	Blunt
10	25-028-100



BARRAQUER COLIBRI

cm:	Max Spread:	Art. No:
3	15 mm	42-020-030
4	17 mm	42-020-040



GOLDSTEIN MINI

cm:	Max Spread:	Art. No:
2	6 mm	342-133-020



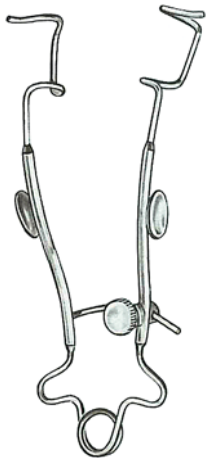
Goldstein Mini

Goldstein



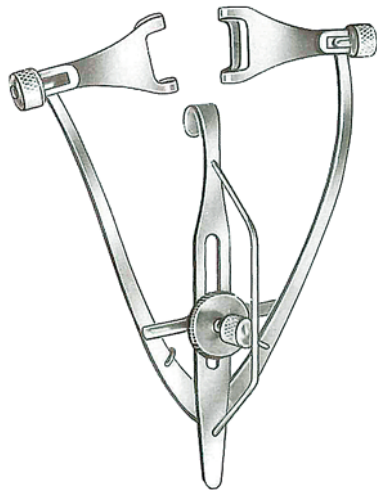
GOLDSTEIN

cm:	Max Spread:	Art. No:
3	17 mm	342-133-030



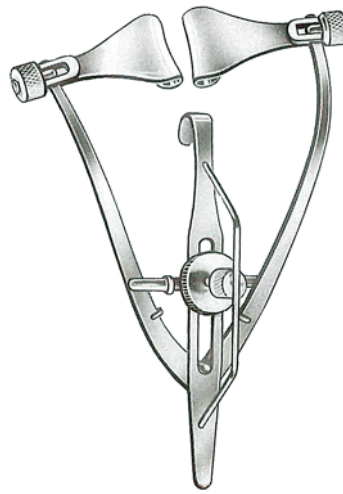
GRAEFE

cm:	Curved
6	42-038-060
9	42-038-090



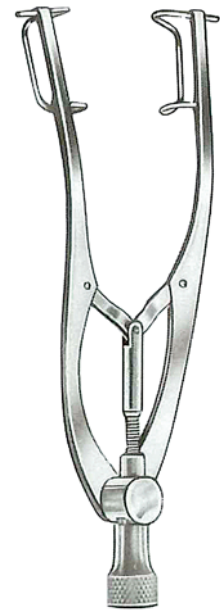
PARK-GUYTON

cm:	Curved
8	42-056-080



PARK MAUMENÉE

cm:	Curved
8	42-058-080



CASTROVIEJO

cm:	Curved
8	42-087-080



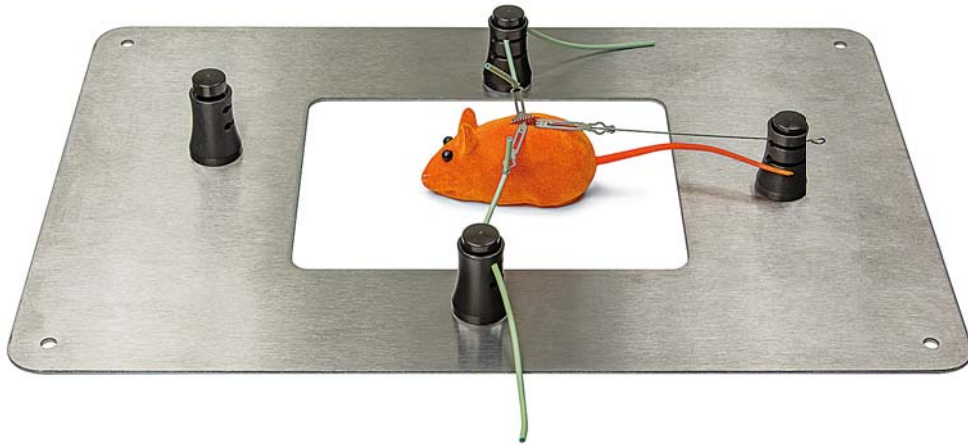
cm:	2 x Sharp	3 x Sharp	4 x Sharp
16	24-031-002	24-031-003	24-031-004



cm:	2 x Blunt	3 x Blunt	4 x Blunt
16	24-033-002	24-033-003	24-033-004

Flexible neck





SURGERY & RETRACTOR TABLE

This Animal Surgery System simplifies set-up procedure and provides the examiner with an excellent overview of the operative site and sets a new standard in procedural control.

The system allows researchers to operate independently, eliminating the requirement for an assistant and removes the distraction of improvised set-ups and thereby allowing the researcher's full attention on the surgical procedure with high repeatability.

The system consists of three components:

- Base Plate
- Fixators
- Retractors

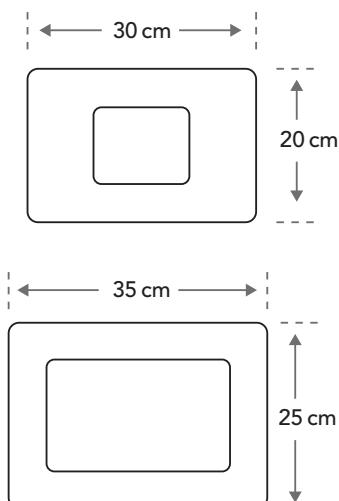
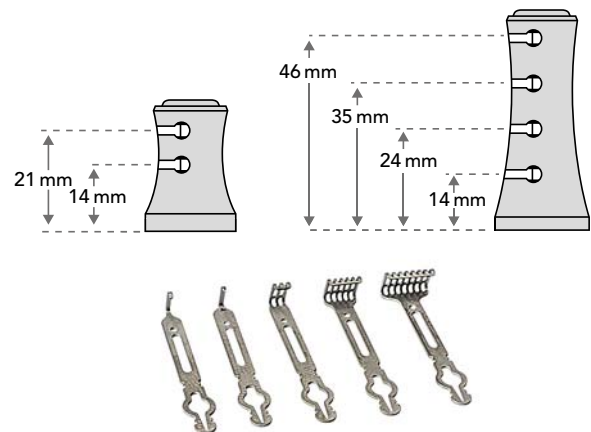
The Base Plates are made of ferro-magnetic stainless steel and are available in two sizes. Both plates have a window in the center which allows the animal contact with body temperature control systems. The window sizes are 10x13cm for the small base plate and 15x25cm for the large.

The Fixators are movable posts that contain rare earth magnets that attach anywhere on the animal table. A push-button top operates multi-level locking jaws that grip wires or elastomers firmly.

Complete depression of the push-button allows for insertion of the wires or elastomer while partial depression of the push-button allows for adjustment.

Fixators can also lock onto other lab components that require stabilization in the surgical setting, such as neurological or rectal probes or anesthesia delivery systems. The magnets do not interfere with lab electronics and can be used in close proximity (3 cm) to ferro-magnetic items.

The Retractors comes in 5 different sizes from 1 mm to 7,5 mm width, plus a single point, sharp tissue hook. These can be used with the retractor wire for static retraction or elastomer for dynamic retraction. The Retractor Tips are light and atraumatic to delicate tissue or membrane. The wires can also be re-formed to create restraints or engage other lab apparatus that need to be secured in the surgical field.



Art. No: ACD-014	Art. No: ACD-015
Small Setup	Mid-Size Setup
1 x Base Plate (20x30 cm)	1 x Base Plate (25x35 cm)
6 x 3 cm Fixators	6 x 6 cm Fixators
10 x Wire Retractors (10 cm)	10 x Wire Retractors (14 cm)
1 x 2 meter roll elastomer	
10 x assorted retractor tips, 2 of each style (1mm sharp, 1mm blunt, 2,5mm blunt, 5mm blunt, 7,5mm blunt)	

All items can be purchased individually e.g. fixators, base plate, retractor tips etc.

CLAMPS & CLIPS



DIFFENBACH BULLDOG CLAMPS

cm:	Straight	Curved
3,5	✓ 13-320-035	13-321-035
5,0	13-320-050	13-321-050
6,0	13-320-060	13-321-060

✓ = Most Popular

Vessel Clip
Applying
& Removing
Instrument



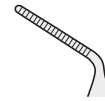
VESSEL CLIPS

	Art. No:	Length of jaw:	Width of jaw:	Closing Force/mm ² :
	13-410-004	4 mm	0,75 mm	125 g
	13-410-006	6 mm	1 mm	100 g
	13-410-008	8 mm	2 mm	85 g
	13-410-010	10 mm	2 mm	60 g

cm:	Art. No:
14	13-414-140



50g
Closing Force



DIETRICH

cm:	Straight	Straight	Angled	Angled
5	13-450-008	13-450-012	13-451-008	13-451-012
	x=8 mm	x=12 mm	x=8 mm	x=12 mm



BIEMER



Art. No:	Length:	Length of Jaw:	Closing Force, mm ² :	Opening:
64-562	18 mm	9,0 mm	20-25 g	5,0 mm



MORIA VESSEL CLAMP

Art. No:	Length:	Length of Jaw:	Closing Force, mm ² :	Vessel Ø:	Wide:
18320-11	33 mm	13 mm	15 g	2 mm	1,8 mm

SCHWARTZ MICRO SERREFINE

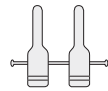
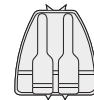
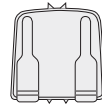
	Art. No:	Total Length:	Description:
	18052-01	26 mm	Strong pressure, non-serrated.
	18052-02	26 mm	

Acland Clamps Applying & Removing Forceps



ACLAND APPLYING FORCEPS

cm:	With Lock:	Without Lock:
14	98 071	98 072



ACLAND CLAMPS

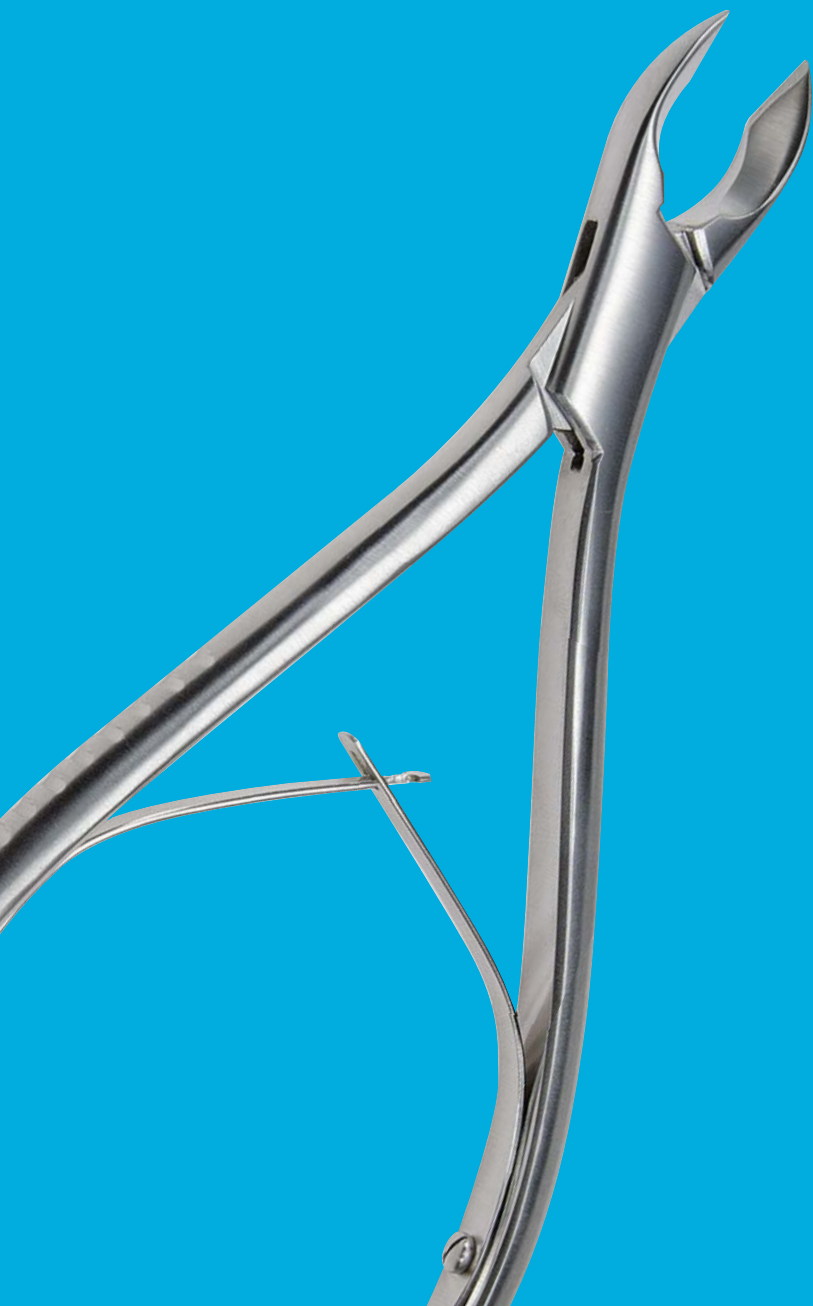
Description:		Angled	Straight	Approximator:	Approximator:	Double Clamp:
8 mm Vessel Ø: 0,4–1,0 mm	Vein	98 244	98 396	98 402	98 408	98 414
	Artery	98 196	98 397	98 403	98 409	98 415

Description:		Angled	Straight	Approximator:	Approximator:	Double Clamp:
11 mm Vessel Ø: 0,6–1,5 mm	Vein	98 245	98 398	98 404	98 410	98 416
	Artery	98 197	98 399	98 405	98 411	98 417

Description:		Angled	Straight	Approximator:	Approximator:	Double Clamp:
17 mm Vessel Ø: 1,0–2,25 mm	Vein	98 246	98 400	98 406	98 412	98 418
	Artery	98 198	98 401	98 407	98 413	98 419

CUTTING & MANIPULATORS

Bone cutters, rongeurs and larger instruments need to have the balance and precision for the researchers courser work. Scalpels, blades, micro knives and other fine instruments are all used for those delicate incisions and manipulations needed for the researches finer work.



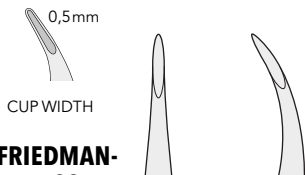
RONGEURS	70
BONE CUTTERS	71
SCALPELS & BLADES	74
MICRO KNIVES	78
HOOKS, SPATULAS & PUNCHES	80
PINS & PROBES	84

RONGEURS



FRIEDMAN DELICATE

cm:	Straight	Curved
14	31-346-140	31-347-140



FRIEDMAN-PEARSON

cm:	Straight	Curved
14	16220-14	16221-14



FRIEDMAN

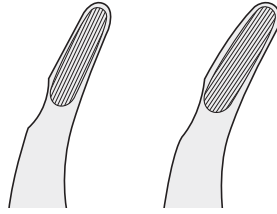
cm:	Curved
14	31-321-140

FRIEDMAN-PEARSON

This popular & fine-tipped rongeur is suited for delicate work. The 0,5 mm fine-cupped jaws have been designed with a longer and slimmer approach for better visibility.

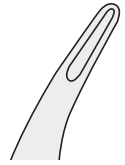
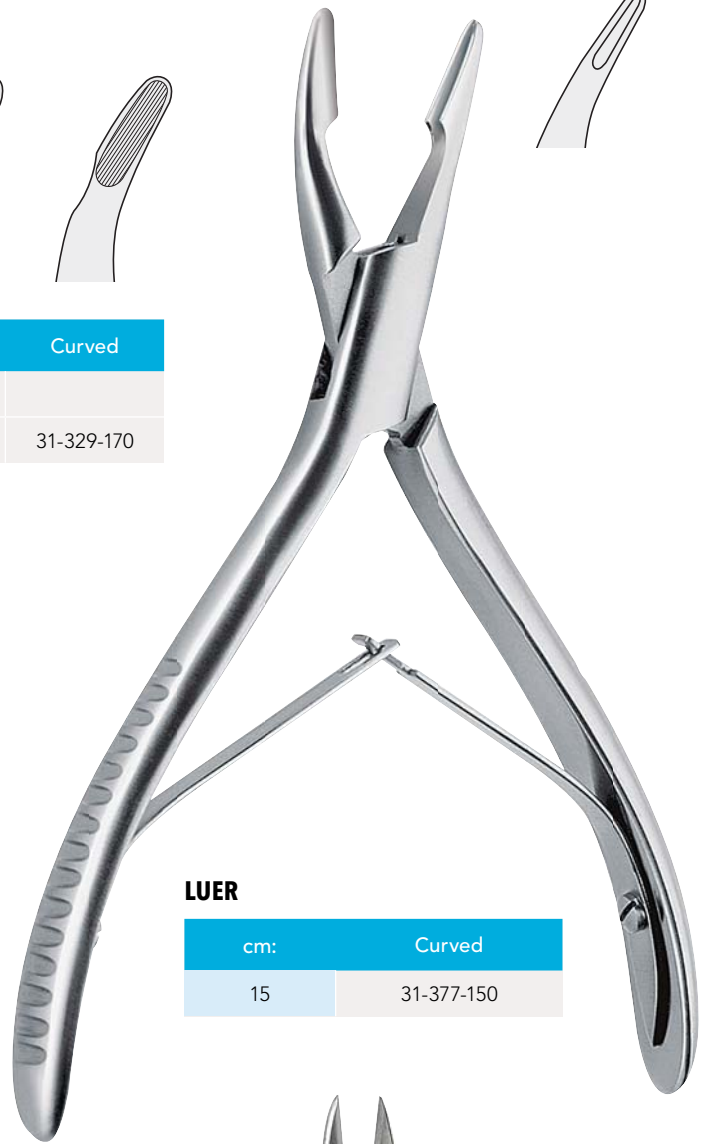
⚠ CAUTION NOTE:

The Friedman-Pearson rongeur tips are extremely fragile. Removal of material with a twisting motion can damage the tips.



CLEVELAND 4

cm:	Curved	Curved
14	31-329-140	
17		31-329-170



LUER

cm:	Curved
15	31-377-150

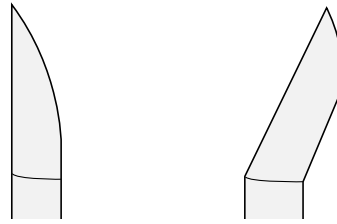
BONE CUTTERS

Ideal instrument when opening a mouse skull. The small and sharp head of the Littauer cuts without causing trauma to the brain.

LITTAUER

cm:	Straight
11,5	17-780-115
13	17-780-130
15	17-780-150

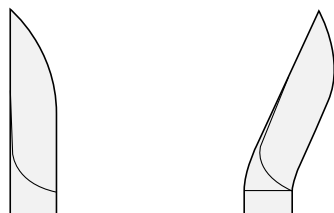




RUSKIN-LISTON

cm:	Straight	Curved
18,5	31-820-185	31-821-185

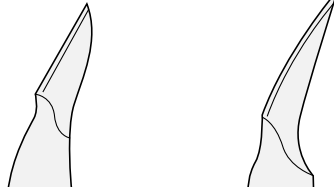
Both the Böhler and Ruskin Liston utilizes the "double action". This provides a second hinge point and increases the pressure and force applied to the cutting edges of the rongeur through the lever action provided by the second pivot point.



BÖHLER

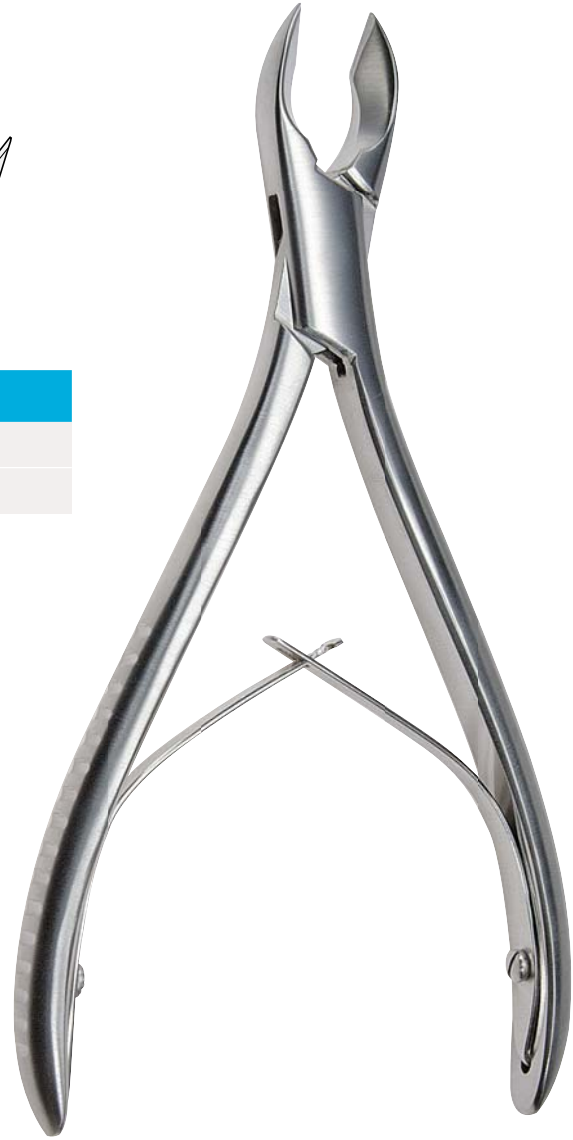
cm:	Straight	Curved
15	31-730-150	31-731-150



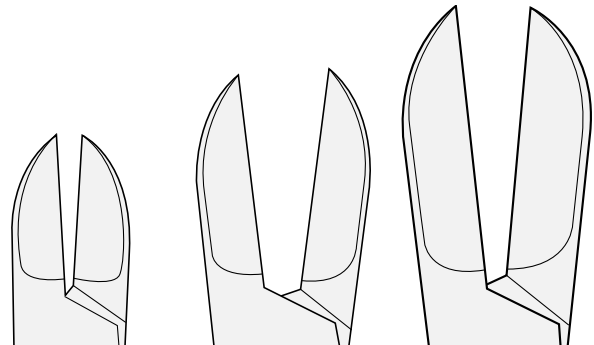


CLEVELAND 5

cm:	Curved	Curved
15	31-727-150	
17		31-725-170



Gross anatomy bone cutter



LISTON

cm:	Straight	Straight	Straight
14	31-720-140		
17		31-720-170	
19			31-720-190
22			31-720-220

SCALPELS & BLADES



NO. 3

NO. 3L

NO. 7

NO. 7K

NO. 4

NO. 4L

For Blades Fig. 10–15

For Blades Fig. 20–25

02-030-030

02-030-031

02-030-070

02-030-071

02-036-040

02-036-041



FIG. 10



FIG. 11

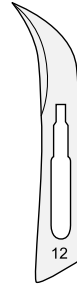


FIG. 12



FIG. 15

For No: 3, 3L, 7, 7K

02-040-010

02-040-011

02-040-012

02-040-015

Pkg of 100



FIG. 20



FIG. 21

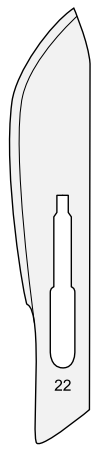


FIG. 22

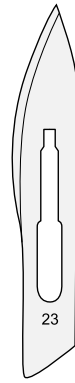


FIG. 23



FIG. 24

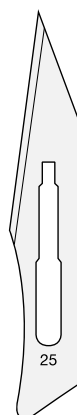


FIG. 25

For No. 4, 4L

02-040-020

02-040-021

02-040-022

02-040-023

02-040-024

02-040-025

Pkg of 100

SCALPEL BLADE REMOVAL AND DISPOSAL BOX

This plastic device will remove scalpel blades safely and retain them for safe disposal. Can be used for blades that fit #3, #4 and #7 handles.

Capacity approximately 80 blades.
7,5 x 5 x 2,5 cm



REMOVAL/DISPOSAL BOX

7,5 x 5 x 2,5cm

10002-50

Carton of 10 boxes

- 1 Insert scalpel fully into disposal box



- 2 Press down on disposal box cover



- 3 Withdraw scalpel handle



FIG. 10



FIG. 11



FIG. 12



FIG. 15

Disposable scalpels with plastic handles.

02-050-010

02-050-011

02-050-012

02-050-015

Pkg of 10, individually sterilized



FIG. 20



FIG. 21



FIG. 22



FIG. 25

Disposable scalpels with plastic handles.

02-050-020

02-050-021

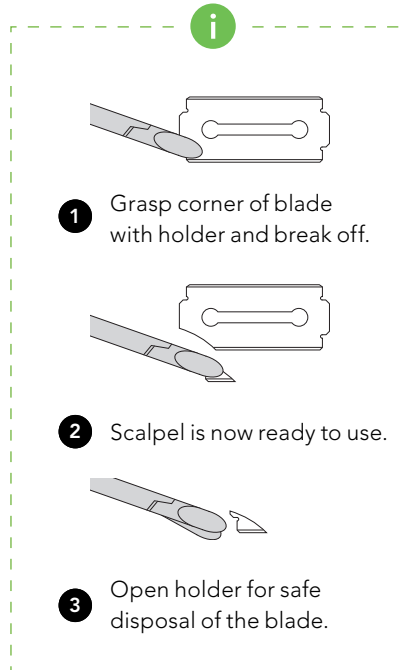
02-050-022

02-050-025

Pkg of 10, individually sterilized



RAZOR BLADE BREAKERS & HOLDERS



CASTROVIEJO

cm:	Ø 8mm	Ø 10mm
13	42-922-130	42-924-130

TROUTMAN CHRIS

cm:	Ø 5,5mm
9	42-920-090



BREAKABLE

Art. No:
42-940-010

Pkg of 10

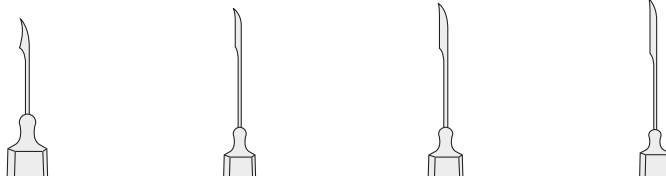


SINGLE EDGE

Art. No:
1080

Pkg of 10

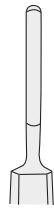
MICRO KNIVES



ZIEGLER

cm:	3,5 mm*	5 mm*	6 mm*	7 mm*
11	02-329-110			
13		02-322-001	02-322-002	02-322-003

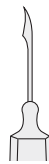
* Cutting edge



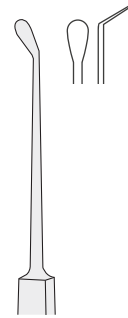
TOOK



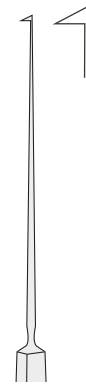
BARKAN



PAUFIQUE



BARRAQUER



JACOBSON

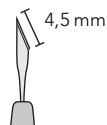
cm:				
11			02-463-110	
12	02-358-120	02-380-120		
13			02-465-130	
15,5				24-523-155

Carbon Steel Blade



VERY FINE ARTERY SCALPEL

cm:	
13,5	10316-14

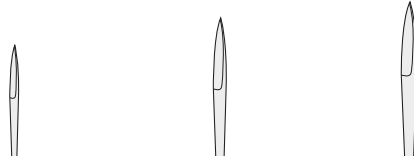


Cutting angle: 22,5°
 Tip tickness: 0,15 mm
 Cutting edge: 4,5 mm
 Delivered sterile



SEXTON

cm:			
17	02-532-001	02-532-002	02-532-003

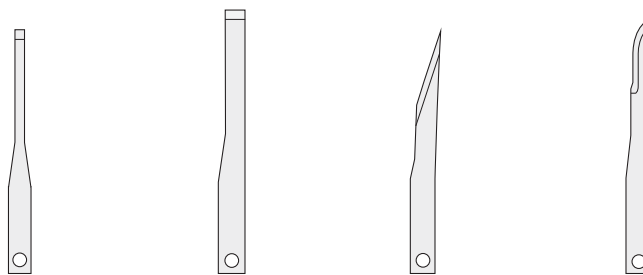


HANDLE FOR CHANGEABLE BLADES

cm:	
9,5	10035-00



Carbon Steel



CHANGEABLE BLADES

Cutting Edge:	Small Flat Blade	Large Flat Blade	Angled Blade	Curved Blade
1,5 mm	10035-05			
2,75 mm		10035-10		
10 mm			10035-15	10035-20

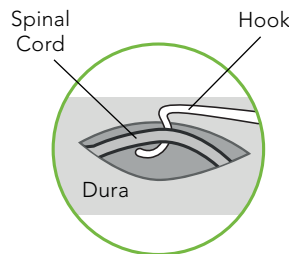
HOOKS, SPATULAS & PUNCHES

FRAZIER

cm:	Sharp	Blunt
13	24-461-130	24-463-130
18	24-461-180	24-463-180

GILLIES

cm:		
18	24-425-001	24-425-002



Shaped like a ligation aid and sized to isolate the spinal cord from the dura of adult mice and neonatal rats.

KILNER

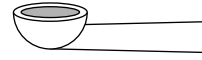
cm:	
15	24-421-150

SPINAL CORD HOOK

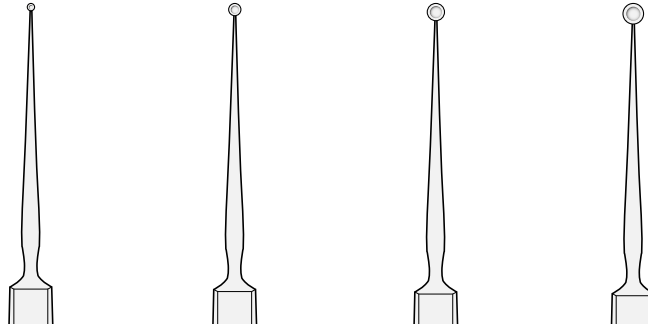
cm:	
12	10162-12

Tip Ø: 3 mm

The curettes are shaped as a solid half sphere. No holes.

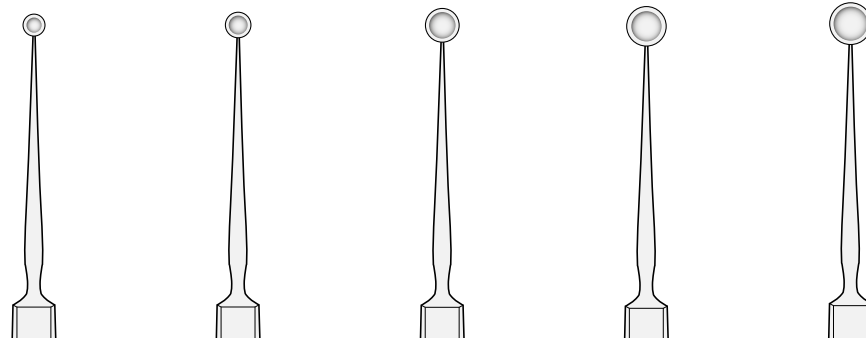


**MEYHOEFER
CURETTES**



cm:	Ø 0,5 mm	Ø 1,0 mm	Ø 1,5 mm	Ø 1,8 mm
13,5	42-370-005	42-370-010	42-370-015	42-370-018

**MEYHOEFER
CURETTES**



cm:	Ø 2,0 mm	Ø 2,5 mm	Ø 3,5 mm	Ø 4,0 mm	Ø 4,5 mm
13,5	42-370-020	42-370-025	42-370-035	42-370-040	42-370-045



MORIA PERFORATED SPOON

cm:	
14,5	10370-18

For taking out embryos of solution and handling very small organs.

Diameter: 15 mm
Depth: 3 mm
Perforation Ø: 0,9 mm

Both ends are malleable for adjustment of shape and angle.

Curved Iris Spatula
Tip Width: 1,7 mm
Tip Thickness: 0,3 mm

Flat Micro Spatula
Tip Width: 1 mm
Tip Thickness: 0,25mm



**HIPPOCAMPAL
DISSECTING TOOL**

HEIDEMANN

11 cm	13 cm	16 cm	16,5 cm	17,5 cm	17,5 cm
10089-11	10093-13	85-420-000	10099-15	85-430-001	85-111-002



BERGSTRÖM MUSCLE BIOPSY

Art. No:	Ø:
119-29187-50	5 mm

The Bergström muscle biopsy cannula consists of a sharp tipped, hollow outer needle with a small opening near the tip. A punch with a sharp edge fits tightly into the needle. The stylet is used for pushing out biopsy specimens from the punch.

How it works

The Bergström-needle works using the so-called Bergström technology. It creates suction by putting your thumb over the hole while pulling the puncher up of the outer needle. The muscle tissue is then sucked in through the slot on the side of the outer needle. When then pressing down the puncher the biopsy is located in the tip of the puncher (which has a round cutting edge at the tip). The stylet is then used to push out the biopsy out of the puncher.



TROCAR, 8,5cm

Art. No:	Ø:	O.D. / I.D.
KN-391	3,5 mm	3,5 / 3,0 mm

The Trocar & Sample Corer are used for quantitative analysis. Comes with a puncher and stylet for pushing out the specimens.



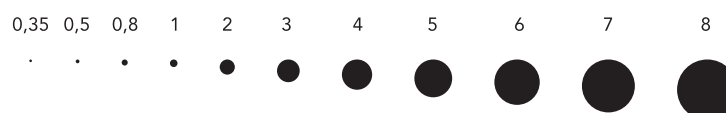
KEYES PUNCHER

Art. No:	I.D. mm:
39-200-002	2
39-200-003	3
39-200-004	4
39-200-005	5
39-200-006	6
39-200-007	7
39-200-008	8



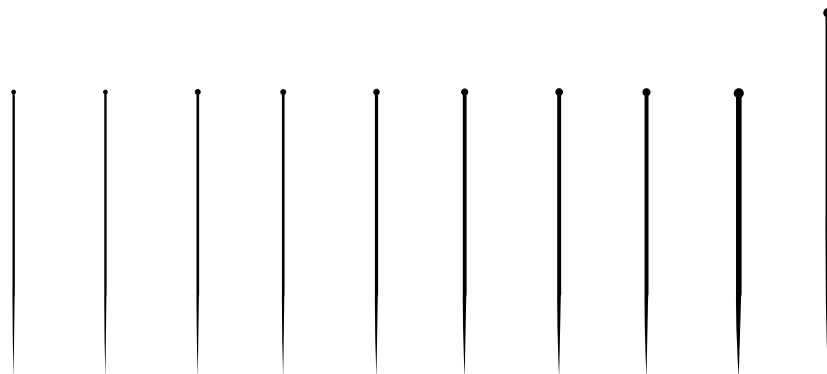
SAMPLE CORER, 8,5 cm

Art. No:	O.D. mm:	I.D. mm:	Gauge:
18035-35	0,80	0,35	21
18035-50	1,00	0,50	19
18035-80	1,45	0,80	17
18035-01	1,80	1,00	15
18035-02	3,00	2,00	11
18035-03	4,00	3,00	8
18035-05	6,00	5,00	4



Measurements in millimeter and scale 1:1

PINS & PROBES



ANODIZED INSECT PINS

0,03 mm
Tip Diameter

Size:	000	00	0	1	2	3	4	5	6	7
Ø mm:	0,25	0,30	0,35	0,40	0,45	0,50	0,55	0,60	0,65	0,70
Length cm:	4	4	4	4	4	4	4	4	4	5,5
Art.No 26000-	25	30	35	40	45	50	55	60	65	70

Finest quality black anodized finish, with nylon head. Pkg=100

STAINLESS STEEL INSECT PINS

0,03 mm
Tip Diameter

Size:	000	00	0	1	2	3	4	5	6	7
Ø mm:	0,25	0,30	0,35	0,40	0,45	0,50	0,55	0,60	0,65	0,70
Length cm:	4	4	4	4	4	4	4	4	4	5,5
Art.No 26001-	25	30	35	40	45	50	55	60	65	70

With nylon head. Pkg=100

ANIMAL LANCET

Goldenrod Animal Lancet let you collect multiple blood samples from small animals. It is available in different point lengths for various animal size and required blood volume. Always use the shortest point possible to draw the amount of blood required. Delivered sterile.



GOLDENROD

Tip mm:	Mice 2-8 weeks	Mice 2-6 months	Mice > 6 months, Rat > 3 months	Rats > 3 months
3,0	GR-3MM			
4,0	GR-4MM			
5,0		GR-5MM		
5,5			GR-5.5MM	
7,0				GR-7MM

Pkg of 1000

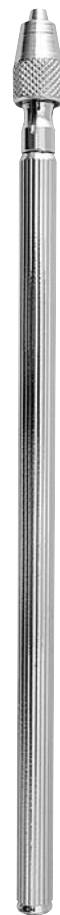


MINUTIEN PINS

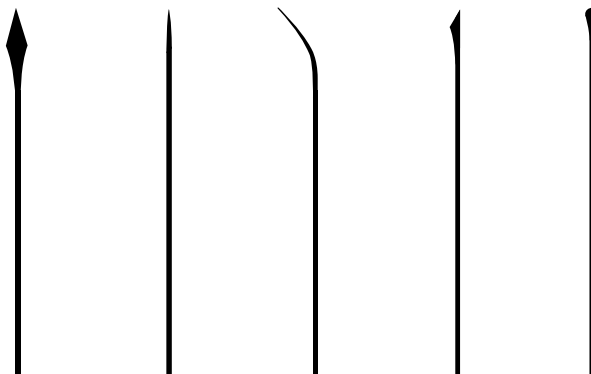
Tip Ø mm:	Rod Ø mm:	Black Anodized	Stainless Steel
0,0125	0,10		26002-10
0,0175	0,15	26002-15	
0,020	0,20		26002-20

Length: 10 mm, Pkg of 500

MORIA nickel plated pin holder with jaw opening from 0–1,0 mm diameter.



Stainless Steel, anti-magnetic, acid resistant. Ø: 0,6 mm. Sold separately.



INSERT PINS

cm:					
5	26007-01	26007-02	26007-03	26007-04	26007-05

PIN HOLDER

cm:	
12	26016-12

Pkg of 1



INSTRUMENT CARE

See page 126



BONN MICRO

Art. No:
10030-13
Length: 13,5 cm
Tip: 0,025 mm

STANDARD

Art. No:
10140-01
Length: 15,5 cm
Tip: 0,25 mm

MICRO POINT

Art. No:
10165-11
Length: 12,5 cm
Tip: 0,4 mm

VAGINAL SMEAR

Art. No:
33-120-115
Length: 11,5 cm
Tip: 2 mm

WOUND CLOSURE

There are different ways and techniques for closing incisions, such as needle and thread, tissue adhesive or suture clips. A perfect result when suturing requires a high quality and durable needle holder, often with Tungsten Carbide inserts. There are two types of suture material, absorbable and non-absorbable of either natural or synthetic materials and AgnTho's sell the complete ETHICON range of sutures.



NEEDLE HOLDERS	88
NEEDLE HOLDERS T/C	92
SUTURE CLIPS	96
ETHICON	98
TISSUE ADHESIVE	104
SILK & NEEDLES	104

NEEDLE HOLDERS



DERF

cm:	Art. No:
12	19-112-120



Smooth Inside

WEBSTER

cm:	Art. No:
13	19-120-130



MAYO-HEGAR



cm:	Art. No:
14	19-170-140
16	19-170-160
18	19-170-180
20	19-170-200

Needle holders with scissors. ✓ 19-280-115 is our most popular needle holder.



OLSEN-HEGAR

cm:	Art. No:		
11,5	✓ 19-280-115		
14		19-280-140	
18			19-280-180



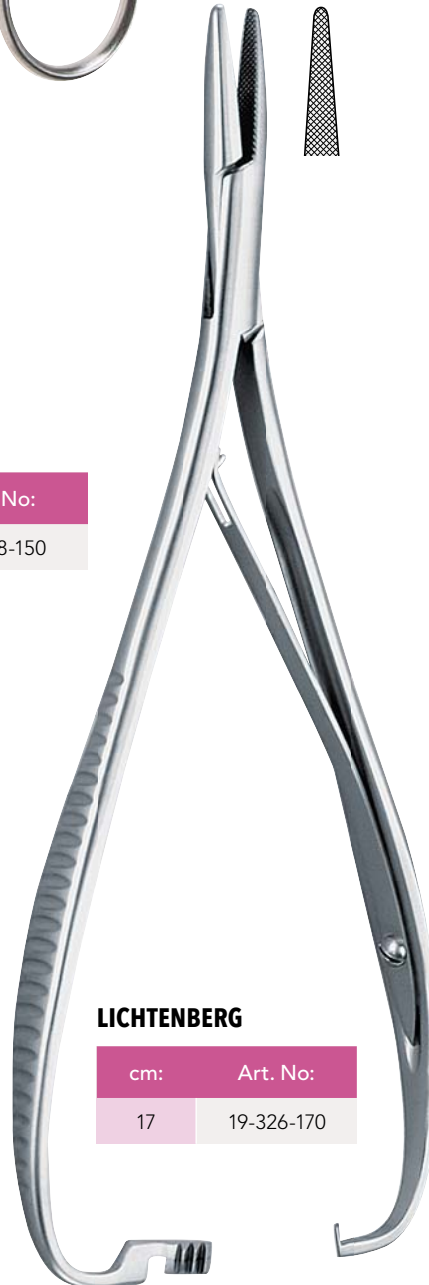
CRILE-MURRAY

cm:	Art. No:
15	19-138-150



LICHTENBERG

cm:	Art. No:
17	19-326-170



KALT

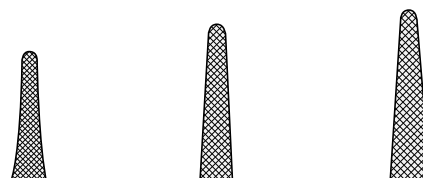
cm:	Art. No:
13,5	19-520-135





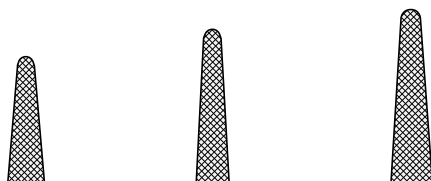
INSTRUMENT CARE

See page 126



LANGENBECK

cm:	Art. No:		
16	19-292-160		
18		19-292-180	
20			19-292-200



MATHIEU

cm:	Art. No:		
14	19-300-140		
17		19-300-170	
20			19-300-200





MICRO CASTROVIEJO

cm:	Art. No:	Description:
9	19-840-090	Straight without lock
9	19-841-090	Curved without lock
9	19-850-090 ✓	Straight with lock
9	19-851-090	Curved with lock

✓ = Most Popular



CASTROVIEJO

cm:	Art. No:	Description:
14	19-820-140	Straight without lock
14	19-821-140	Curved without lock
14	19-824-140 ✓	Straight with lock
14	19-825-140	Curved with lock

✓ = Most Popular

TUNGSTEN CARBIDE

When you require a high quality instrument, Tungsten Carbide adds several advantages to your instrument. This special alloy is very hard and holds the sharpness of the instrument several times longer compared to conventional instruments.

This feature, compared to the extra initial cost for a Tungsten Carbide instrument, will provide a cost effective solution for your surgical instruments. The properties of this alloy have also benefited the special cross patterns that can be found on the needle holders, rendering a much more secure needle grip. Tungsten Carbide inserts are only applied (usually glued or welded) to the working surface of the instrument which provide the right flexibility to the instruments but with a superior hardness where the action is.



DERF

cm:	Art. No:
12	20-116-125

HALSEY

cm:	Art. No:
13	20-120-130

BABY-CRILE-WOOD

cm:	Art. No:
15	20-160-150



MAYO-HEGAR



cm:	Art. No:
14	20-220-140
16	20-220-160
18	20-220-180
20	20-220-200

Needle holders with scissors. ✔ 20-380-120 is our most popular Tungsten Carbide needle holder.



OLSEN-HEGAR

cm:	Art. No:
12	✔ 20-380-120
14	20-380-140
16	20-380-160
18	20-380-180

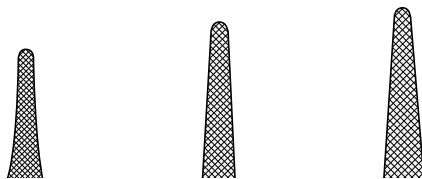
With Scissors



**OLSEN-HEGAR
T/C NEEDLE HOLDER**

cm:	With Scissors
12	104-15590-121

STILLE's needle holders are easily recognized by their delicate and slim design, which helps holding the needle very secure. The gold handles indicates that the jaws are fitted with Tungsten Carbide inserts to prolong the instrument life.



LANGENBECK

cm:	Art. No:		
14	20-392-140		
16	20-392-160		
18		20-392-180	
20			20-392-200





MATHIEU

cm:	Art. No:
14	20-420-140
17	20-420-170
20	20-420-200



LICHTENBERG

cm:	Art. No:
14	20-470-140
17	20-470-170



MICRO CASTROVIEJO

cm:	Art. No:
14	20-690-140

CASTROVIEJO

cm:	Straight	Curved
14	20-680-140	20-681-140



SUTURE CLIPS

Suture Clips works like a staple gun to rapidly apply clip for wound closure with minimal trauma. Stainless steel clips are non-pyrogenic and provide a fast method for wound closure and have been associated with decreased wound infection rates and are less reactive than traditional suturing material. The applicator will hold 20 clips that are pre-loaded on a rack and supplied non-sterile. There is no need for assistance to operate the applicator or remover and when the wound is healed, clips are easily removed with the dedicated remover. The 7mm clips are a perfect size for mouse surgery. 9 mm clips works for adult mice and rats.



REFLEX REMOVER

Art. No:
205-1000

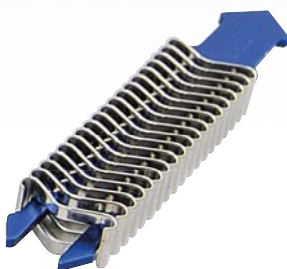
REFLEX APPLIER

Clip mm:	Art. No:
7	204-1000
9	202-1000

REFLEX CLIPS

Clip mm:	Art. No:
7	203-1000
9	201-1000

Pkg of 100



AUTOCLIP/EZ CLIPS

Description:	Art. No:
Autoclip Remover	59026
Autoclip Applicator	59043
EZ Clips, 9 mm *	59027

*Pkg of 1000



MICHEL

Art. No:
08-910-120
Length, cm: 12



HEGENBARTH

Art. No:
08-920-125
Self Closing
Length, cm: 12,5



WACHENFELDT

Art. No:
08-922-125
Length, cm: 12,5



WACHENFELDT

Art. No:
08-924-125
Self Closing
Length, cm: 12,5



Applier and Remover

MICHEL

cm:	Art. No:
12	17-730-120 ¹
12	12029-12 ²

¹ For 22-620-011, -012, -014

² For 22-620-007

MICHEL CLIPS

mm:	Art. No:
7,5 x 1,75	22-620-007
11 x 2	22-620-011
12 x 3	22-620-012
14 x 3	22-620-014



Pkg of 1000

ETHICON

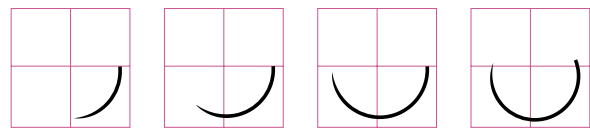
ETHICON, a subsidiary of Johnson & Johnson is the worldwide leader in suture products and suture technology and one of the most recognizable and well-respected brand names in the hospital environment. The division has a long history of innovation in providing products including sutures, topical adhesives, surgical meshes and more.

ETHICON NEEDLES

NEEDLE SHAPE:

The choice of needle shape is frequently governed by the accessibility of the tissue to be sutured, and normally the more confined the operative site the greater the curvature required.

1/4 Circle 3/8 Circle 1/2 Circle 5/8 Circle



NEEDLE TYPE:

1 REVERSE CUTTING



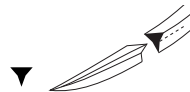
The body of this needle is triangular in cross section, having the apex cutting edge on the outside of the needle curvature. This improves the strength of the needle and particularly increases its resistance to bending.

2 CONVENTIONAL CUTTING PRIME



Cutting PRIME Needles are manufactured with an exclusive needle tip design. The cross sectional geometry of the needle tip reduces the angles of the cutting edges which gives improved penetration and control.

3 REVERSE CUTTING PRIME



Cutting PRIME Needles are manufactured with an exclusive needle tip design. The cross sectional geometry of the needle tip reduces the angles of the cutting edges which gives improved penetration and control.

4 TAPER POINT



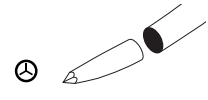
This point profile is engineered to provide easy penetration of intended tissues. Taper Point needles are available in a range of wire diameters and the finer diameters can be used for softer tissue in gastrointestinal or vascular procedures whereas heavier diameters are required for tougher tissue such as muscle.

5 TAPERCUT





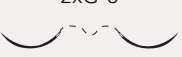











This needle combines the initial penetration of a cutting needle with the minimized trauma of a round bodied needle. The cutting tip is limited to the point of the needle, which then tapers out to merge smoothly into a round cross section.


















6 CC



The unique point design of the CC Needle provides significantly improved penetration properties for the Cardiac / Vascular surgeon when suturing tough, calcified vessels. This is achieved with no increase in tissue trauma compared to the conventional round bodied needle.



Type:	Needle:	Shape:	Length:
1	M-1 	▼ 1/2	13 mm
1	G-6 	▼ 3/8	8 mm
1	2xG-6 	▼ 3/8	2x8 mm
1	C-3 	▼ 3/8	13 mm
1	FS-3 	▼ 3/8	16 mm
1	FS-2 	▼ 3/8	19 mm
1	FS-2S 	▼ 3/8	19 mm
1	FS-1 	▼ 3/8	24 mm
1	FS 	▼ 3/8	26 mm
2	PC-3 	▲ 3/8	16 mm
2	PC-5 	▲ 3/8	19 mm
3	P-1 	▼ 3/8	11 mm
3	P-3 	▼ 3/8	13 mm
3	PS-2 	▼ 3/8	19 mm

Type:	Needle:	Shape:	Length:
4	BV75-3 	⊙ 3/8	3,8 mm
4	BV50-3 	⊙ 3/8	3,8 mm
4	BV130-4 	⊙ 3/8	4,7 mm
4	BV-4 	⊙ 3/8	5,1 mm
4	BV-2 	⊙ 3/8	6,5 mm
4	BV130-5 	⊙ 3/8	6,5 mm
4	BV-1 	⊙ 3/8	9,3 mm
4	C-1 	⊙ 3/8	13 mm
4	BB 	⊙ 3/8	17 mm
4	TF-6 	⊙ 1/2	6,5 mm
4	RB-1 	⊙ 1/2	17 mm
4	2xTF 	⊙ 1/2	2x13 mm
4	TF 	⊙ 1/2	13 mm
4	SH 	⊙ 1/2	26 mm
4	2xSH 	⊙ 1/2	2x26 mm
5	V-4 	⊙ 3/8	17 mm
6	CC-1 	⊙ 3/8	13 mm

ABSORBABLE SUTURES

ETHICON synthetic absorbable sutures exhibit a range of different characteristics and capabilities. From VICRYL Sutures for effective short to medium term applications, to MONOCRYL for medium to long term and PDS II for extended wound support for the long term applications. ETHICON absorbable sutures perform optimally across the range of surgical needs.

Suture:	Remaining Tensile Strength:					Absorption Rate:
	1 week	2 week	3 week	4 week	6 week	
VICRYL		75%	50%	25%		56–70 days
MONOCRYL	60% (Violet)	30% (Violet)		0% (Violet)		90–120 days
	50% (Undyed)	20% (Undyed)	0% (Undyed)			
PDS II		80%		70%	60%	182–238 days

VICRYL

VICRYL is probably the world's most famous family of suture. It is together with SILK Ethicon's most popular suture material. It is braided for easy handling and secure knot tying. VICRYL has a special coating for minimizing friction, smooth passage through tissue and easy knot tie down. The properties of VICRYL make it ideal for a wide range of applications when an absorbable suture is needed. It is synthetic for minimal tissue reaction.

Art.No:	Size	Needle	Color	Length, cm	Qty/pkg
V1028H	7-0	TF-6	●	30	36
V387H	6-0	FS-3	●	45	36
W9575	6-0	BV-1	●	30	12
V384H	6-0	C-3	●	45	36
V926H	6-0	TF	●	70	36
V391H	5-0	FS-2	●	45	36
V925H	5-0	TF	●	70	36
V385H	5-0	C-3	●	45	36
V421H	5-0	FS-2	Undyed	70	36
VCP493H*	5-0	P-3	Undyed	45	36
V493H	5-0	P-3	Undyed	45	36
V397H	4-0	FS-2S	●	70	36
V392ZG	4-0	FS-2	●	45	12
V392H	4-0	FS-2S	●	45	36
VCP392ZH*	4-0	FS-2	●	45	36
V1204G	4-0	None (ligature)	●	250	12
V292ZH	4-0	FS-2	Undyed	45	36
V304H	4-0	RB-1	●	70	36
V422H	4-0	FS-2S	Undyed	70	36
VCP397H*	4-0	FS-2	●	70	36
V393G	3-0	FS-2	●	45	12
VCP393H*	3-0	FS-2	●	45	36
V393H	3-0	FS-2	●	45	36



*VicrylPlus. Antibacterial suture coated with Triclosan

MONOCRYL

MONOCRYL is a soft suture with a monofilament structure for smooth passage through tissue. It is synthetic and causes minimal tissue reaction. Thanks to the properties of MONOCRYL it can be used in a wide range of applications. MONOCRYL is also less affected by needle holders than other monofilament sutures, although precaution is always advisable.

Art.No:	Size	Needle	Color	Length, cm	Qty/pkg
Y292H	4-0	FS-2	Undyed	45	36
Y416H	3-0	SH	●	70	36
W3326	3-0	FS	Undyed	70	12
Y416H	3-0	SH	●	70	36
Y443H	2-0	FS-1	Undyed	70	36



PDS II

PDS II is the second generation of monofilament sutures which structures provides a smooth passage through tissue. It is synthetic and causes minimal tissue reaction. Thanks to the extended time of tension strength in PDS II it has a wide range of surgical applications. As all monofilament sutures it is sensitive to mechanical stress e.g. needle holder why precaution should be used.

Art.No:	Size	Needle	Color	Length, cm	Qty/pkg
Z463H	5-0	P-3	●	45	36
Z925H	5-0	TF	●	70	36
Z315H	4-0	SH	●	70	36



NON-ABSORBABLE SUTURES

Non-absorbable materials are used to suture tissues requiring long-term or permanent support in which the product strength is critical. They tend to be classed in two areas; whether they are monofilament or multifilament, and if they are natural or synthetic. ETHICON has a wide range of non-absorbable sutures to match today's demanding surgical procedures including the exceptionally smooth PROLENE Suture and the superior strength of braided ETHIBOND Suture. SILK is our most popular non-absorbable suture for the biomedical research field.

ETHIBOND

ETHIBOND is a multifilament braided suture for easy handling and secure knot tying. ETHIBOND is coated with polybutylate for smooth tie down and easy passage through tissue. The coating which acts as a lubricant to mechanically improve the physical properties of the uncoated suture by improving handling qualities as contrasted to the braided, uncoated fiber. The suture is synthetic for minimal tissue reaction.

Art.No:	Size	Needle	Color	Length, cm	Qty/pkg
6661H	5-0	FS-2	●	45	36
6942H	4-0	V-4	●	75	36
6663H	3-0	FS-1	●	45	36



SILK

SILK is a classical suture material. Ethicon SILK is made by the finest raw material from the cocoons of the silk worm *Bombyx Mori*. After a thorough cleaning the material is braided with a special method called PERMA-HAND. This process gives the Ethicon SILK its characteristics of a smooth, strong suture with easy handling and knot stability.

Art.No:	Size	Needle	Color	Length, cm	Qty/pkg
768G	7-0	2xG-6	●	45	12
EH7464G	7-0	G-6	●	30	12
K803H	7-0	BV-1	●	30	36
786G	6-0	P-1	●	45	12
K889H	6-0	C-1	●	75	36
681H	6-0	FS-3	●	45	36
EH7435G	6-0	G-6	●	30	12
K890H	5-0	C-1	●	75	36
719H	5-0	C-3	●	45	36
640H	5-0	P-3	●	45	36
N266H	5-0	TF	●	45	36
682H	5-0	FS-2	●	45	36
688H	5-0	M-1	●	45	36
EH7149G	4-0	FS-2	●	45	12
K891H	4-0	C-1	●	75	36
W811	4-0	C-3	●	45	12
K881H	4-0	BB	●	75	36
736H	4-0	C-3	●	45	36
684H	3-0	FS-1	●	45	36
EH7345H	3-0	FS-2	●	45	36



PROLENE

PROLENE is a monofilament suture with very smooth surface and texture of synthetic fiber. These properties make PROLENE a very useful non-absorbable suture for smooth passage through tissue with minimal tissue reaction. PROLENE is biologically inert, and cause less inflammatory response in the tissue sutured than natural fibers, and do not degrade from the enzymes present in the body. The suture is eventually encapsulated by the healing tissue, and does not require removal.

Art.No:	Size	Needle	Color	Length, cm	Qty/pkg
W2775	8-0	BV130-5	●	13	12
W2777	8-0	2xBV130-5	●	45	12
8889H	6-0	C-1	●	75	36
EH7975H	6-0	CC-1	●	75	36
W527	5-0	PC-3	●	45	12
8942H	4-0	V-4	●	75	36
EH7476H	4-0	C-1	●	75	36
EH7151H	4-0	FS-2	●	45	36
8832H	3-0	SH	●	75	36
8684H	3-0	FS-1	●	45	36
8522H	3-0	2xSH	●	90	36



ETHILON

ETHILON is the second most popular non-absorbable sutures after SILK. It has a monofilament structure for smooth passage through tissue while still providing strength and knot stability. It is a tissue friendly suture and is often used for skin suturing and is also available in very fine dimensions (11-0) making it also suitable for cosmetic surgery or where similar care is required.

Art.No:	Size	Needle	Color	Length, cm	Qty/pkg
W2881	11-0	BV50-3	●	13	12
2814G	10-0	BV-4	●	15	12
W2870	10-0	BV75-3	●	13	12
2809G	9-0	BV-2	●	15	12
2808G	8-0	BV-2	●	15	12
W2812	8-0	BV130-4	●	13	12
1696H	7-0	P-1	●	45	36
697H	6-0	P-1	●	45	36
EH7177H	6-0	FS-3	●	45	36
MPE1698H	6-0	P-3	●	45	36
EH7790H	5-0	FS-2	●	45	36
EH7823H	5-0	FS-3	●	45	36
EH7144H	4-0	FS-2	●	45	36
W1856T	4-0	PC-5	●	45	24
EH7824H	4-0	FS-3	●	45	36
W1620T	4-0	PS-2	●	45	24
EH7794H	3-0	FS-1	●	45	36
EH7792H	3-0	FS-2	●	45	36



SUTURE SCISSORS

cm:	Curved
13,5	101-8584

This Stille Scissors is manufactured in stainless steel grade 1.4117 which is relatively hard steel that can withstand a lot of wear. The Scissors has specially designed blades to cut sutures, withstand slippage and remain sharp through extended suture cutting without becoming dull.

TISSUE ADHESIVE

DERMABOND

Dermabond is a liquid topical skin adhesive used for wound closure. It has superior strength and microbial protection and single-layer application. When used together with sutures it adds 75% more strength to the wound closure.



Art. No:	Description:
AHVM12	Dermabond, Skin. Adhesive pkg of 12



VETBOND

3M Vetbond tissue adhesive quickly and conveniently closes minor wounds, often eliminating the need for sutures and/or bandages while providing a physical barrier to protect wound while healing. Vetbond changes from liquid to solid state by polymerizing in seconds to seal the wound.

Art. No:	Description:
1469SB	Vetbond 3 ml

SILK & NEEDLES

Braided silk is one of the best silks for handling and tying of any suture material. The braiding on the twisted core makes tensile strength higher, and the smooth surface makes knots secure. Our braided silk is non-absorbable, sterile and is only for use with laboratory animals.

BLACK STERILE SILK

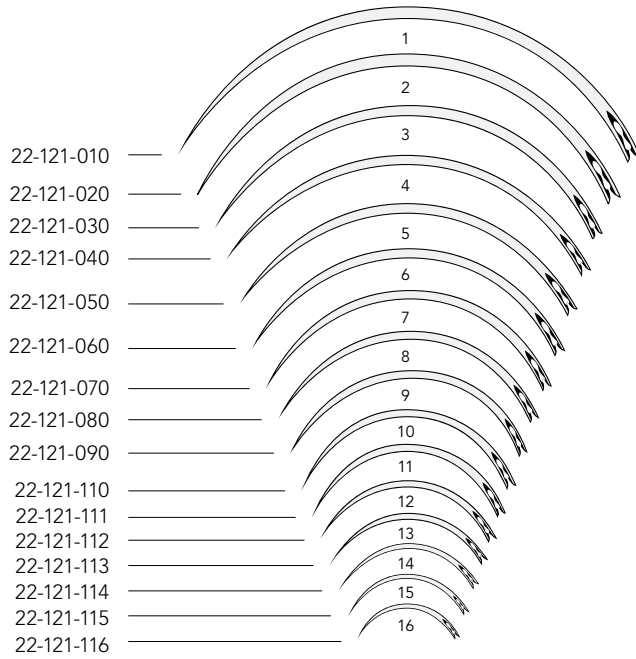
Size:	Art. No:
7-0 (0,06 mm)	14699
6-0 (0,08 mm)	14719
5-0 (0,12 mm)	14739
4-0 (0,17 mm)	14757
3-0 (0,25 mm)	14777
2-0 (0,32 mm)	14797
0 (0,37 mm)	14837
1 (0,45 mm)	14857

Pkg of 100 meter



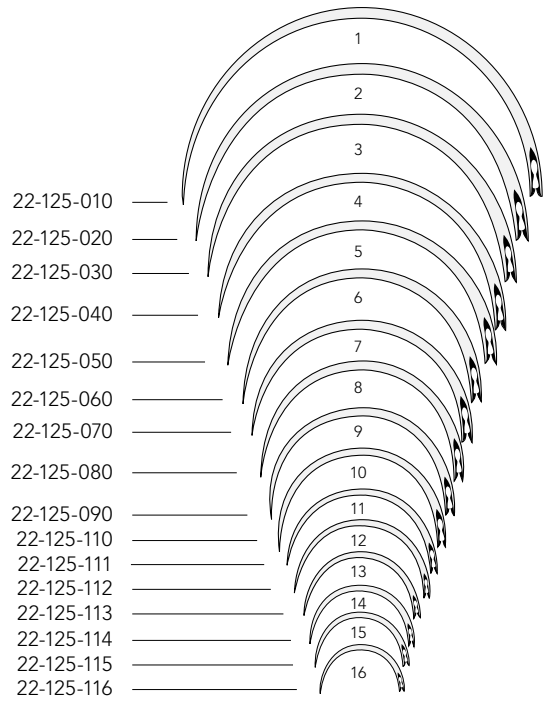
NEEDLE TYPES:

▲ For skin closure ● For soft and fragile tissue



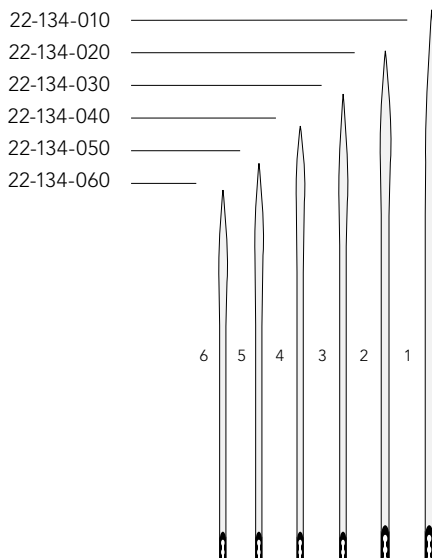
SPRING EYE

B ▲



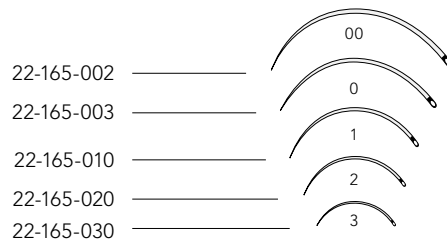
SPRING EYE

G ▲



KEITH

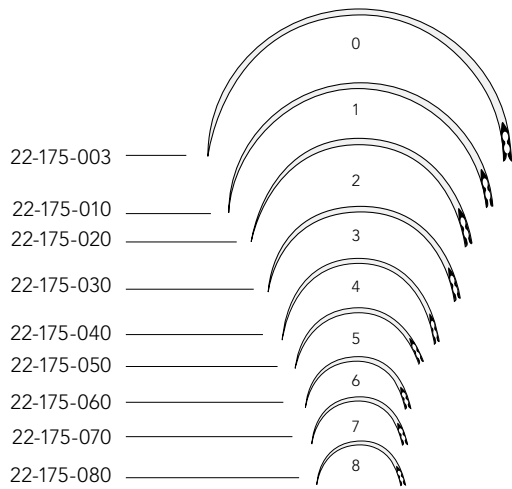
▲



PLAIN EYE

Kalt ●

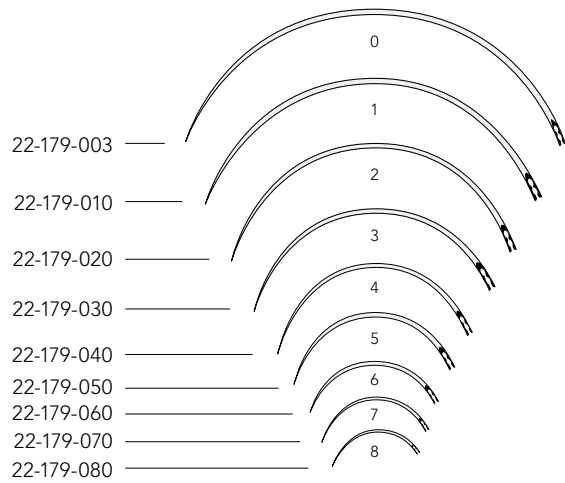




22-175-003
22-175-010
22-175-020
22-175-030
22-175-040
22-175-050
22-175-060
22-175-070
22-175-080

SPRING EYE

Pb ●



22-179-003
22-179-010
22-179-020
22-179-030
22-179-040
22-179-050
22-179-060
22-179-070
22-179-080

SPRING EYE

Pd ●



Suture Instrument

KRONECKER

cm:	Art. No:
13	326-127-130



Suture Forceps

OCHSNER

cm:	Art. No:
14	08-934-140



Suture Forceps

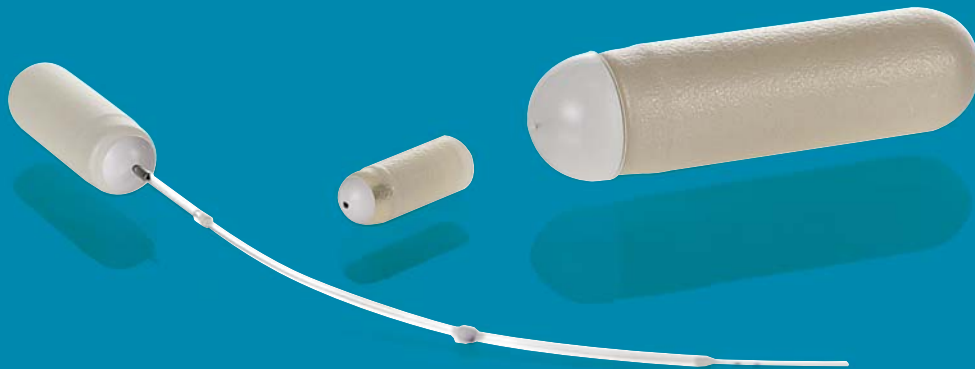
MODEL TÜBINGEN

cm:	Art. No:
10	08-720-100

ALZET

- NO MORE NEEDLES

With more than 30 years in use and over 16.000 publications the ALZET Osmotic Pumps continues to be the benchmark in drug administration in unrestrained small animals. These totally implantable minipumps deliver drugs, hormones, and other test agents at continuous and controlled rates, for durations ranging from one day to six weeks without the need for external connections or frequent handling.

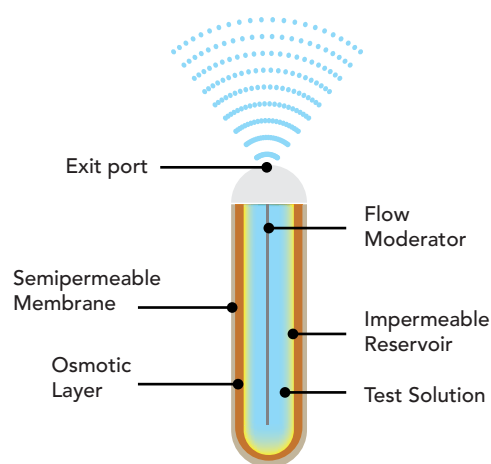


ALZET[®] OSMOTIC PUMPS

ALZET[®] Osmotic Pumps are miniature, implantable pumps for research in mice, rats and other lab animals. The pump provides slow and continuous administration of drugs, hormones and other test solutions at precise and controlled rates in unrestrained lab animals. The ALZET[®] pump is implanted subcutaneously or intraperitoneally in the laboratory animal. Attachment to a catheter allows for direct delivery of agents to vessels, spinal cord, cerebral ventricles and other target tissues.

HOW DOES IT WORK?

ALZET[®] pumps are composed of 3 concentric layers: the drug reservoir, the osmotic layer, and an outer, rate-controlling, semipermeable membrane. Once implanted, the pump begins to absorb water through the outer, semipermeable membrane. The water entering the pump hydrates and expands the osmotic layer, compressing the flexible, impermeable reservoir. As a result, test solution is released via the exit port at a controlled, predetermined rate.

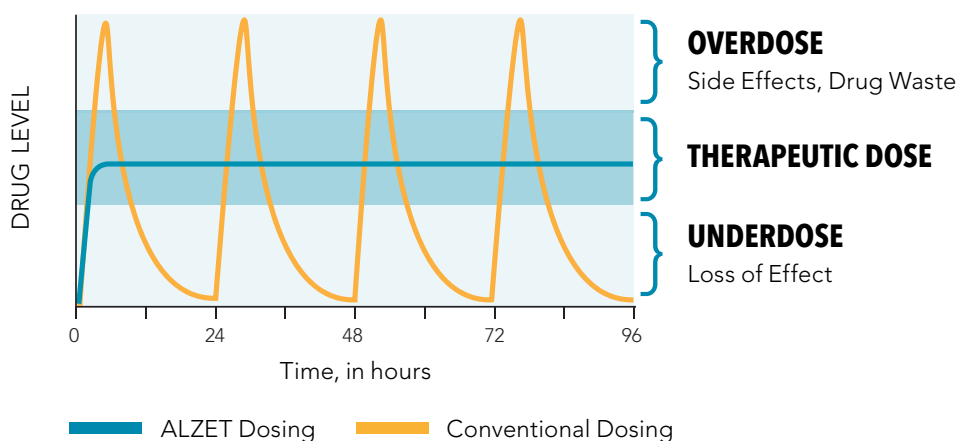


THE POWER OF CONTINUOUS DELIVERY

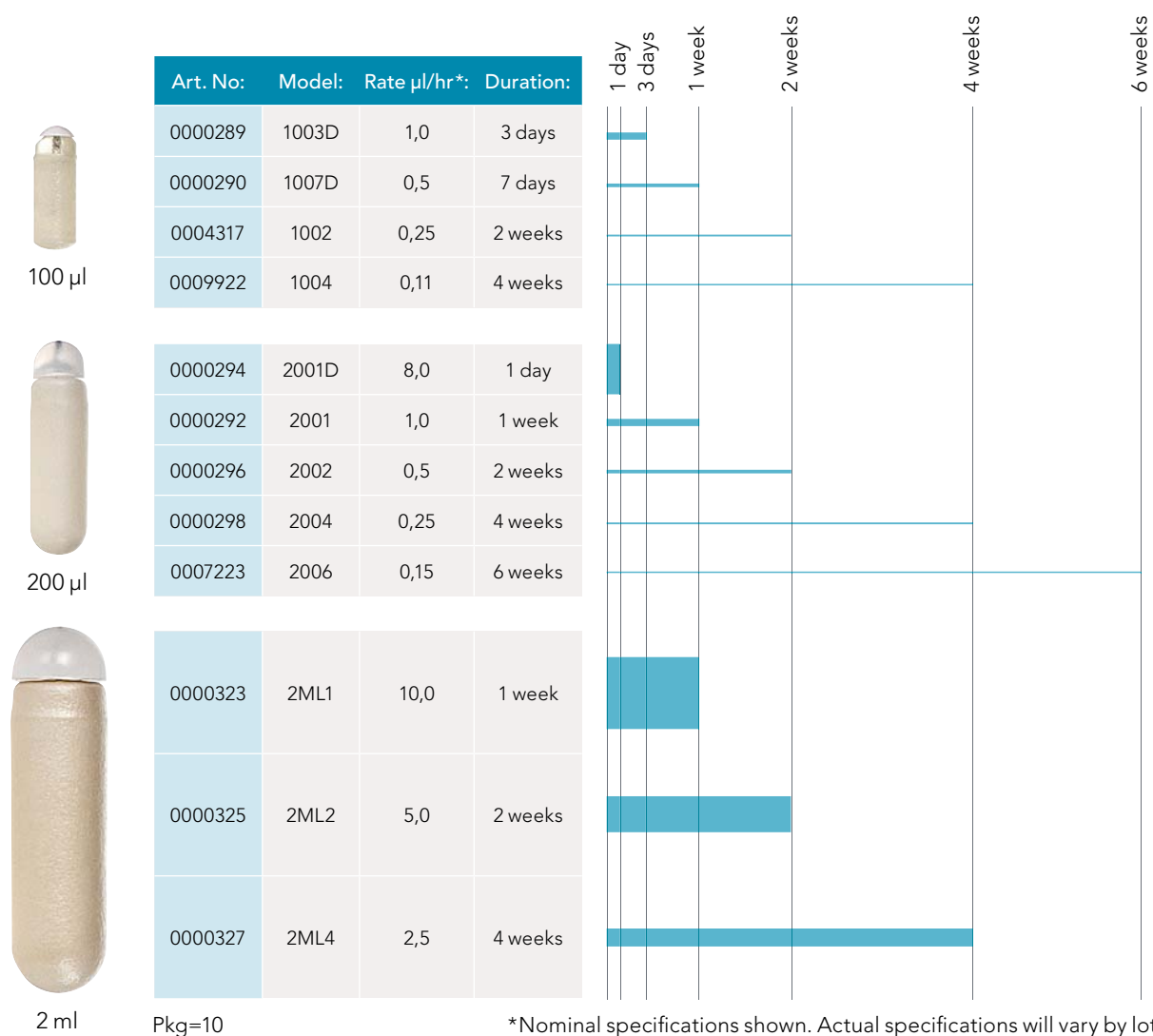
Injections can result in great variations in serum and tissue concentrations. Immediately after injection, compound concentrations commonly exceed effective levels, resulting in overdosing and toxicity.

Rapid clearance causes periods between injections wherein the compound is absent from serum and tissues, resulting in underdosing and lack of drug effect.

ALZET[®] pumps deliver compound solutions at controlled and predictable rates, ensuring that constant and optimum levels of test agents are maintained throughout the study duration.



DELIVERY RATES & DURATIONS



ANIMAL SIZE FOR IMPLANTATION

ALZET® pumps can be implanted SC or IP in mice and rats following the animal size guidelines below. They have also been used in hamsters, rabbits, dogs, cattle, birds, fish and other species. The minimum animal size estimates are based on experience with male Sprague Dawley rats and Swiss Webster mice. When using the pumps with other types or genders or rats and mice, or with other animals, these guidelines should be modified accordingly.

Pump model	1003D, 1007D, 1002, 1004	2001D, 2001, 2002, 2004, 2006	2ML1, 2ML2, 2ML4
MICE			
Subcutaneous	10 g	20 g	n/a
Intraperitoneal	20 g	n/a	n/a
RATS			
Subcutaneous	10 g	20 g	150 g
Intraperitoneal	20 g	150 g	300 g



BRAIN INFUSION KITS

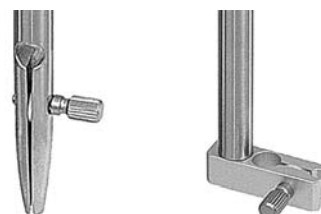
ALZET® Osmotic Pumps and Brain Infusion Kits have been used in cutting edge neuroscience research since 1977. Their ability to circumvent the blood-brain barrier (BBB) and administer agents directly to the central nervous

system (CNS) has enabled new and exciting discoveries in the study of neuropathic pain, cerebral ischemia, neurodegenerative diseases, and more.

Art.No:	Description:	Feature:	Gauge:	Pkg:
0004760	Brain Infusion Kit 1	3–5 mm depth	28	10
0008663	Brain Infusion Kit 2	3–5 mm depth	28	10
0008851	Brain Infusion Kit 3	1–3 mm depth	30	10
0008670	Loctite 454	Adhesive Gel, Cyanoacrylate		1

STEREOTAXIC HOLDERS

These KOPF stereotaxic holders enables stereotaxic placement of brain cannula onto the skull of laboratory animals for CNS delivery applications. They are specially designed to grip the removable tab on all ALZET® brain infusion cannulae during brain cannulation. These holders are compatible with the most common stereotaxic frames.



Art. No:	1766-AP	1776-P1

CATHETERS

Via a catheter, ALZET® Osmotic Pumps can deliver substances into vessels, spinal cord, cerebral ventricles, brain parenchyma, and other organs or tissues. ALZET® pumps can be attached to catheter tubing with I.D ranging from 0,58 mm to 0,76 mm. Our most common catheters are listed here (visit our website for a complete list).

Delivered sterile.

Art.No:	Description:	Pkg:
0007743	Mouse Intrathecal	1
0007771	Mouse Intraperitoneal	1
0007720	Rat Femoral	1
0007770	Rat Intraperitoneal	1
0007740	Rat Intrathecal	1



ANIMAL ACCESSORIES

For our precious animals we supply different accessories designed with the animal in mind. They should be as atraumatic as possible, but still fulfill the need of the researcher. Whether it is gavage for oral feeding or earpunchers for ID marking & biopsy or shavers we have chosen the range of products with the user and animal in mind.



FEEDING NEEDLES	112
ANIMAL ID	116
SHIVERS	120
RESTRAINERS	121



FEEDING NEEDLES

Our animal Feeding Needles are designed to meet the needs of pharmacologists, toxicologists, pathologists and other biomedical researchers. These Feeding Needles are mostly used for dosing and oral feeding of laboratory animals, but the stainless steel needles can also be used for Intracardiac Perfusion procedures. Their unique ball design of the needle tip ensures insertion with minimal risk of puncturing vital organs.



The disposable Feeding Needles are delivered in sterile pouches with plastic luer hub and silicon tips. Two kinds are available; Malleable Metal and Teflon tubing. The malleable metal type can easily be formed to a desired angle or shape. The Teflon type is very flexible and ensures that no damage occurs during the insertion.

Art. No:	Newborn/Mice & Rats	15–35g	50–150g	>150g
1036		●		
1037		●	●	
1038			●	●
1043				●
1044		●		
7900	●			
7901	●			
7920	●	●		
7902		●	●	
7904		●	●	
7905			●	●
7906				●
7907				●
7923				●
7909				●
7924				●
7912		●	●	
7913			●	
7914				●
7915			●	
7916				●
4202		●		
4204			●	●
4206				●
5200		●		
5202		●		
5204			●	●
5206				●
7204				●
7206				●
7208				●





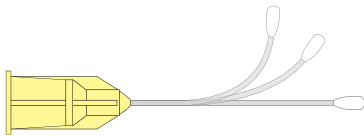
Olive Tip			
1044	1036	1038	1043
1037			

Ball Tip					
7900	7902	7907	7909	7912	7915
7901	7904	7923	7924	7913	7916
7920	7905			7914	
	7906				

Art. No:	Gauge:	Length, mm:	Ball O.D. mm:
1044	18	30	1,75
1037	18	40	1,75
1036	21	40	1,75
1038	19	60	1,75
1043	14	80	2,00
7900	24	25	1,25
7901	22	25	1,25
7920	22	37	1,25
7902	20	37	2,25
7904	18	37	2,25
7905	18	50	2,25
7906	18	75	2,25
7907	18	75	3,00
7923	16	50	3,00
7909	14	75	4,00
7924	13	75	4,00
7912	18	36	2,25
7913	18	50	2,25
7914	18	75	2,25
7915	16	50	3,00
7916	16	75	3,00



4202* 4204* 4206* 5200 5202 5204 5206 7204 7206 7208



*Malleable to desired shape.

Art. No:	Gauge:	Tube Length, mm:	Tube, O.D. / I.D. mm	Ball O.D. mm:
4202	20	38	0,92 / 0,62	1,9
4204	18	52	1,20 / 0,83	2,3
4206	15	78	1,81 / 1,45	2,9

Malleable metal with silicon-tip, sterile with plastic luer hub. Pkg of 5.

Art. No:	Gauge:	Tube Length, mm:	Tube, O.D. / I.D. mm	Ball O.D. mm:
5200	20	38	0,90 / 0,50	1,8
5202	18	38	1,18 / 0,68	2,0
5204	17	52	1,46 / 0,86	2,4
5206	15	78	1,79 / 1,19	2,8
7204	18	75	1,18 / 0,68	2,0
7206	17	85	1,46 / 0,86	2,4
7208	15	100	1,79 / 1,19	2,8

Flexible Teflon tube with silicon-tip, sterile with plastic luer hub. Pkg of 5.

ANIMAL ID

Animal research requires a reliable system of identification. An ID system for one experiment may not be suitable for another. How to apply the ID mark, what kind of species and duration of the experiment are some of the factors that determines which method to choose.



EAR PUNCH PINCER

We developed this ear punch pincer after having heard several testimonies from customers with sore wrists and thumbs from using small ID punchers. This pincer relieves the stress on the wrist during ID marking as it requires a very gentle pressure to cut a hole.

The stainless steel puncher has a sloped edge which provides a cut rather than a punch, which minimizes animal discomfort. The ear punch pincer is autoclavable but should be thoroughly dried and lubricated afterwards for a long and trouble free usage.

Art. No:	Hole Ø:
AT7000	2,00 mm
AT7075	2,75 mm

Also available with holder for Eppendorf vial

EAR PUNCHER

Our own development of a small and efficient ear puncher based on the AT7000. This puncher allows the user to come closer when marking the animal and it is also equipped with a sloped edge for a clean cut.

This ear puncher with spring action is autoclavable, but should be thoroughly dried and lubricated afterwards for a long and trouble free usage. 11 cm long with a \varnothing 2 mm hole.

Art. No:	Hole Ø:
AT7020	2 mm



RapID POLYMER EAR TAGS

These advanced polymer eartags (from RapID Lab, Inc.) are humane, automated, mini-eartags providing fast and accurate identification for lab animals. The hardened 2-D barcode scans instantly with 100% accuracy providing millions of unique IDs. Multiple colours allow immediate secondary (visual) identification without scanning. RapID Tags are totally MRI and autoclave compatible, and are minimally invasive (no surgery required). RapID Tags are the new, cost-effective, smart solution for automated lab animal identification.



The automation when reading the eartags eliminates identification errors and provides the easiest and fastest method for data collection compatible with study and colony management software and spreadsheet applications. RapID Tags have been industry tested confirming their performance, tolerability and durability.

RapID Tag's unique design encapsulates a hardened barcode in a tough, chew resistant advanced polymer body. The barcode contains an exclusive combination of alpha-numeric digits providing the lab technician with millions of unique ID numbers. RapID Tags are ordered and shipped in five colours – 40 of each colour. Multi-coloured RapID Tags provide ultra-fast visual identification without disturbing caged animals. RapID Tags can be colour matched to computer-generated labels for cage cards and specimens.

RapID Tag barcodes are easily and instantly scanned and read by the CR-1400 scanner and other popular hand-held or stand-held ordinary light-scanners. RapID Tag's industry standard barcodes have been hardened to resist damage from aggressive, neighboring caged rodents.

STARTER KIT INCLUDES:

- 200 RapID Tags (40 of each colour)
- 1 RapID Applicator
- 1 RapID Removal Tool
- 20 practice RapID Tags (with simulated ear membrane)
- RapID Tag Product Guide
- RapID Tag Product Literature
- RapID FAQs
- Self-Certification Affidavit and Product Registration

Art. No:	Description:
RapID-SK	RapID Starter Kit
RapID-CR1400	RapID-Scanner incl. USB cable and hands-free stand
RapID-200	RapID Tags, 5 colors, pkg=200
RapID-App	RapID Applicator
RapID-Rem	RapID Removal Tool
RapID-Practice20	RapID Practice Tags, pkg=20



METAL EAR TAGS

These ear tags are produced in Monel which is a Nickel-Copper alloy that is used for its excellent combination of corrosion resistance, strength & flexibility. The tags can be used in chronic studies. The standard tags are laser etched for best visibility with number 0001–1000. The ear tags are also available with custom etched numbers or letters. The tag is easily applied with a special applicator.

Custom numbering are available upon request e.g. A1001-A2000, B2001-B3000 etc.

Art. No:	Description:
1005S1	Applicator
1005-1	Ear tags, 0001–1000

Tags sold in pkg of 1000



Art. No:	Description:	Size:
150000340	Compact Max Reader	
150000500	PICO-ID Chip	1,25x7mm*
150000800	Micro-ID Chip	2,12x8mm*
150000447	MICRO ID ISO	2,12x12mm*

*pkg of 10

PICO-ID IMPLANTABLE CHIP

This is the one of the smallest implantable ISO chip for animal identification.

The ID chip measures 7x1,25 mm and has a Parylene coating for antimigration. It features a custom integrated circuit, coil and capacitor hermetically sealed in biocompatible glass with a unique, non-replicable ID number. The ID chip is passive and is activated once within the readers electromagnetic field. The implanted chip then transmits its data to the reader within milliseconds.

An adhesive with 6 labels for each number and with barcodes is delivered with each chip. Each chip is delivered preloaded in a <16 Gauge needle sterilized in EO gas. These chips are non-programmable.



ANIMAL MARKERS

The Animal Marker was developed for easy, long lasting identification of laboratory animals. The markers contain no harmful chemicals and instead nontoxic pigment approved by the Japanese Ministry of Health for use in food, drugs and cosmetics. It is intended for use on the fur and not the skin and will last for 6–12 weeks. One marker will last for 300–500 animals depending on size and area applied.

Art. No:	Description:	Tip:	Volume:
ATAM10-B	Animal marker, Blue	Fine	10ml
ATAM10-G	Animal marker, Green	Fine	10ml
ATAM10-R	Animal marker, Red	Fine	10ml
ATAM10-Y	Animal marker, Yellow	Fine	10ml
ATAM15-B	Animal marker, Blue	Large	15ml
ATAM15-G	Animal marker, Green	Large	15ml
ATAM15-R	Animal marker, Red	Large	15ml
ATAM15-Y	Animal marker, Yellow	Large	15ml

Pkg of 1

CAUTION: Colors can stain skin and clothing. Use of gloves and lab coats is recommended.

These colours will not work on black fur.



TATTOO

Convenient comprehensive kits for the humane tattoo identification of neonate or adult mice and rats. Each kit is provided with a comprehensive training guide and instruction DVD as well as tools you need for safe and efficient tattooing of your rodents. The AIMS tattooing techniques are performed on un-anesthetized animals and produce permanent ID's that are easy to read.

AIMS tattoo pigments and supplies have been used in the industry for over 25 years and have been demonstrated to be SAFE and NON-TOXIC. Tattoo identification is very cost effective.

- Tattoos are permanent.
- Tattoos are easier and faster to read than other methods of identification.
- Animals can be tattooed very rapidly.
- Tattoos can be used to identify day old mice or rats.
- Animal stress is minimal and the physiology status of animals is not altered.
- No need for anesthesia for rats or mice.
- The incidence of animal bites is reduced.
- Tattoos are routinely used to identify nude, athymic and transgenic animals.

- Tails can be saved in formalin with tissues as a positive source of identification.
- Tattooed tails do not fall off like ear tags.

Art. No:	Description:
ATS-3	General Rodent Tattoo System
NEO-9	NEO-9 Neonate Tattoo System



SHIVERS



Very popular product

AESCULAP ISIS RODENT SHAVER

The Isis shaver is a very small high quality shaver designed for shaving animal hair. It is delivered with a 2,4 cm wide blade that can cut as close as 0,1 mm to the skin. Thanks to the small footprint the Isis can be located very close to where the surgery takes place. The shaver is used without power cord. An indicator light is illuminated while charging. The blade can be replaced when needed.

- Ergonomic
- Very quiet (<60 dBA)
- Rechargeable
- Blade only 2,4 cm wide
- Weight: 120 grams
- Stand-up charger with indicator light
- Operates cordless
- Battery charging time approx. 60 Min
- Running time approx. 40 Min

Art. No:	Description:
GT420	Aesculap Isis rodent shaver
GT608	Spare blade Isis



AESCULAP VEGA SHAVER

The Vega shaver is a high quality shaver designed for shaving animal hair. It is delivered with a 4 cm wide blade that can cut as close as 0,5; 1,5 or 2,5 mm to the skin with the integrated adjustment pin on the back. Thanks to the small footprint the Vega shaver can be located very close to where the surgery takes place. The shaver is used without power cord. An indicator light is illuminated while charging. The blade can be replaced when needed.

- Ergonomic
- Very quiet (<60 dBA)
- Rechargeable
- Blade 4 cm wide
- Li-Ionic Battery
- Weight: 250 grams
- Blade GT606
- Stand-up charger with indicator light
- Operates cordless
- Battery charging time approx. 60 Min
- Running time approx. 100 Min

Art. No:	Description:
GT410	Aesculap Vega shaver
GT606	Spare blade Vega

RESTRAINERS

Restrainers are especially designed for allowing the animal to be introduced, adjusted and restrained with minimal trauma. The restrainers hold the animal safely in position during experimental procedures such as tail vein injection, blood sampling or blood pressure monitoring etc. The animal should be trained and conditioned for repeated studies to avoid unnecessary stress.

LE-SERIES

A hole at the base of the door allows for the whole tail to be available for tail injections/ sampling, pulse transducer etc. The lateral holes and slots allow for good ventilation and access to the animal.

The available space for the animal can easily be adjusted by sliding the doors and fixating with the upper screws. The mouse model has a black nosecone for a less stressful environment while the rat size has transparent doors.

Art. No:	Animal size:	Length, mm:	ID, mm:
LE5014	Up to 25 g	80	23
LE5016	Up to 35 g	90	29
LE5018	Up to 50 g	90	33
LE5019	ob/ob mice	90	44
LE5020	80–200 g	150	44
LE5022	180–320 g	180	54
LE5024	300–440 g	200	64
LE5025	440–550 g	225	74



G-SERIES

The G-Series consists of a cylinder hinged to a base. On the top of the cylinder there are four slots and an end plate allowing adjustment of the cylinder length for different rodent sizes.

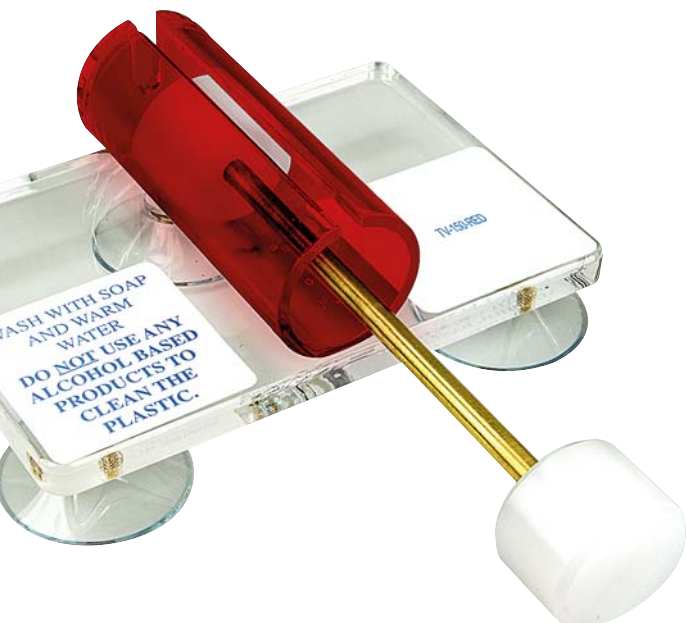
The animal can be accessed through the cylinder slots or the hole in the base plate when accessing the animal from below.

Art. No:	Description:	Length, mm:	ID, mm:
G-1	50–120 g	160	38
G-2	120–250 g	220	57
G-3	250–350 g	240	60
G-4	350–400 g	260	63
G-5	400–800 g	280	69



TAILVEINER

Tail vein injection made easier! The Tailveiner® is the first easy-to-use mouse and rat restrainer specifically designed for tail vein injections. Slotted tube permits the rat or mouse to be quickly pulled in by the tail. The animal is then restrained by a plug which slides easily to accommodate any size rat or mouse, but locks automatically when handle is released. After dosing, the handle is lifted and the plug is easily removed. The Tailveiner is the fastest restrainer yet for intravenous injections in small animals.



Art. No:	Description:	Length, cm:	ID, cm:
TV-Small	Tail Veiner for mouse	Tube 9 cm	2,8
TV-150	Tail Veiner for mouse	Tube 9 cm	3,2
TV-150-RED	Tail Veiner for mouse	Tube 9 cm	3,2
RTV-170	Tail Veiner for rats	Tube 9 cm	4,5
RTV-180	Tail Veiner for rats	Tube 9 cm	6,9

LABORATORY ACCESSORIES

Different applications and research requires their special laboratory supplies. We have a great selection of accessories for laboratory work as stainless steel cases, autoclaveable instrument trays, silicon mats, tubing, balances, instruments care products as well as reference books.



INSTRUMENT TRAYS	124
INSTRUMENT CARE	126
TUBING	128
BALANCES	130
MEASURING INSTRUMENTS	131
BOOKS	133

INSTRUMENT TRAYS

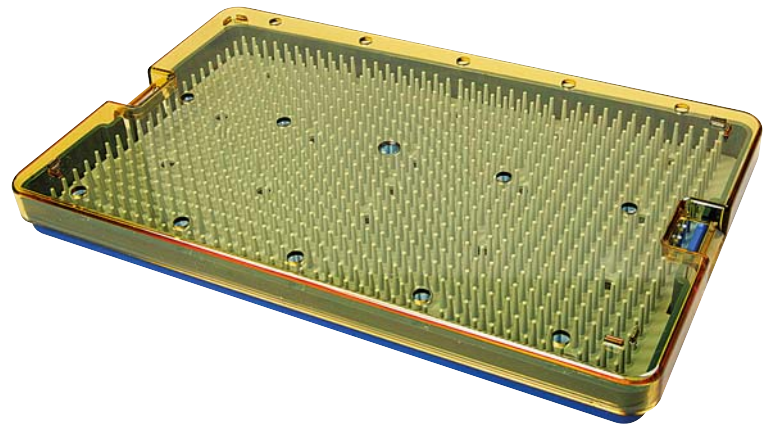
STERILIZATION TRAY

Instrument tray for transport, sterilization and storage of delicate instruments. The trays are designed to assure proper penetration of sterilizing agent between the mat and the tray surface. Silicone mat included. Available in three different sizes.

The trays are made to withstand common sterilization methods, including steam, gas, cold sterilization solutions, and temperatures up to 182°C/360 F.

Art. No:	Size, cm:
199-60010	10 x 17 x 2
✓ 199-60020	15 x 25 x 2
199-60030	25 x 38 x 2

✓ = Most Popular



SENTRY INSTRUMENT TRAY

A much appreciated cost-effective instrument case. Protect your delicate and valuable instruments in this instrument tray. This tray is a lightweight, stackable, inexpensive tray suitable for autoclaving as well as storing your instruments. The tray has a separate top and bottom that locks together, which with the silicone extrusions ensure a secure yet gentle environment to your instruments.

Art. No:	Size, cm:
250-3000	21,5 x 11,5 x 4
250-1000	21,5 x 22,0 x 4
250-4000	21,5 x 39,0 x 4

INSTRUMENT CUP

– Designed to reduce damage to surgical instruments.

This instrument cup holder is designed to arrange the instruments in an open position. This cup replaces the glass and metal jars, and will render longer instrument life. Slip resistant bottom makes relocating the cup safe and easy. Small instruments can be suspended to the toothed edges, while long instruments will rest against the soft bottom and side. The wide opening prevents instruments from touching.



Art. No:	Description:	Depth, cm:
150-1005	Instrument Cup, Small	7
150-1000	Instrument Cup, Large	11

STAINLESS STEEL CASES

These stainless steel instrument cases can be used to store instruments or various equipment and accessories. Inexpensive, reliable and useful for everyday practice in the laboratory.



Art. No:	Size, cm:
121001	17
121002	20
121003	25



Art. No:	Size, cm:
157001	12 x 8 x 4
157003	16 x 10 x 3
157005	20 x 10 x 5
157016	30 x 20 x 5



Art. No:	Size, cm:
157601	23 x 13,5 x 4,5
157602	31,5 x 21,5 x 6



INSTRUMENT CARE



ARKANSAS STONE

This natural Arkansas Stone has two grooves, 1,6 mm and 0,8 mm and is used for resharpening the tips of Dumont forceps or other applicable instruments. Delivered in a cedar box with ten O-rings included.

Art. No:	10 x 4 x 1cm
29008-22	Arkansas Stone



SMALL ARKANSAS STONES

Natural Arkansas oil stones whose fineness, hardness and density are unsurpassed. Used with mineral oil, they will greatly assist in resharpening your instruments.

Art. No:	90 x 6mm
29008-01	Square Arkansas Stone
29008-12	Triangular Arkansas Stone

O-RINGS

These rubber O-rings fit the Dumont forceps, or similar, and keep them closed with variable degrees of pressure on the tips. The O-ring will clamp the forceps so that both shanks are equally sharpened when using the different Arkansas stones.

Art. No:	Description:
11200-00	O-Rings, 1 cm

Pkg of 10





OIL

A multipurpose inert oil for lubrication of a variety of applications but especially suitable for overlapping joints on instruments.

Art. No:	Description:
29055-00	Oil, 50 ml



INSTRUMENT TAPE

Organize your instruments easily with these affordable coloured tapes. They withstand boiling, cold sterilization and autoclaving. Comes in 8 colours each 0,6 cm wide and 107 cm long.

Art. No:	Description:
29080-00	Instrument tape

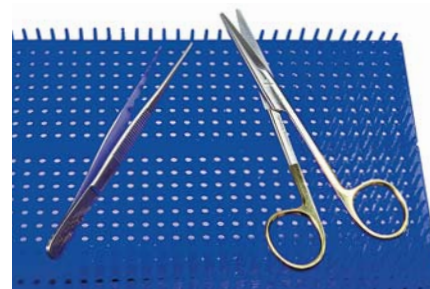


TIP PROTECTORS

These tip protectors comes in seven sizes and colours. Protect your instruments and extend their lifetime with these latex-free stretchable tip protectors.

Art. No:	Description:
29060-00	Tip Protectors

Pkg of 35



SILICONE MAT

– The perfect companion while operating.

This silicone mat is designed for safe placement of instruments. It is also used as base in Stainless Steel Cases (see page 123), cut into desired size. The mat comes with holes for draining, is autoclavable and measures 30x20 cm.

Art. No:	Description:
20325-00	Silicone Mat

TUBING

POLYETHYLENE, PE

PE is our most common sold tubing. It is a relatively rigid polymer tubing and its characteristics make it suitable for short-term catheterization or other general in vitro applications in the laboratory. Supplied non-sterile.

Art. No:	O.D. mm:	I.D. mm:
PE 8	0,50	0,20
PE 10	0,61	0,28
PE 20	1,05	0,35
PE 31	0,80	0,50
PE 50	0,96	0,58

Art. No:	O.D. mm:	I.D. mm:
PE 60	1,20	0,80
PE 90	1,27	0,86
PE 160	1,50	1,00
PE 190	1,70	1,20
PE 200	1,90	1,40

Pkg of 30 meter

POLYURETHANE

Polyurethane has proven to be more blood compatible than other polymer materials. This means extended catheter life and reducing the probability of vascular thrombosis. Many clinical devices are using this material due to its exceptional biological and blood compatibility. Supplied non-sterile.

Art. No:	O.D. mm:	I.D. mm:
MRE 010	0,25	0,12
MRE 025	0,64	0,30
MRE 033	0,84	0,36
MRE 037	0,94	0,58
MRE 040	1,02	0,64

Art. No:	O.D. mm:	I.D. mm:
MRE 040-S-20	1,02	0,50
MRE 050	1,27	1,02
MRE 080	2,03	1,02

Pkg of 12 meter

SILICON

The silicon rubber tubing is inert and contains no harmful plasticizers. Silicon is essentially non-reactive and the tubing will remain its flexibility through a temperature range of -73°C to 260°C. The tubing may be autoclaved and re-sterilized without altering physical characteristics. Supplied non-sterile but clean without talc.

Art. No:	O.D. mm:	I.D. mm:
SIL 025	0,64	0,30
SIL 037	0,94	0,64
SIL 047	1,19	0,64
SIL 065	1,65	0,76
SIL 080	2,03	1,02

Pkg of 8 meter



FEP

FEP teflon tubing is inert, clear and with small internal diameter. There is a strict correlation between the length of the tubing and the internal volume.

The tubing is used to connect Microdialysis probes, syringes, liquid switches, swivels and other components in a Microdialysis system. Supplied non-sterile.

Art. No:	O.D. mm:	I.D. mm:	Description:	Volyme:	Length:
FEP 1004	0,68	0,12	Transparent	1,2 µl/10 cm	1 m
FEP 1005	0,68	0,12	Transparent	1,2 µl/10 cm	10 x 1 m
FEP 1006	0,68	0,15*	Red	N/A	Free length

*+/- 0,05 mm

PEEK

Polyetheretherketone, PEEK is an inert opaque tube. It is used in the same applications as FEP but with stiffer tubing characteristics. It is more resistant to oxygen transfer than FEP and has excellent mechanical stability and chemical compatibility and can be used up to 100°C. Supplied non-sterile.

Art. No:	O.D. mm:	I.D. mm:
4001001	0,65	0,12

Pkg of 10x1 meter

TUBING ADAPTERS

These flanged tubing adapters are made for safe connection between tubing, switch or swivel. The adapters are capable of adapting tubing and cannulas with an outer diameter of 0,60–0,80 mm. They are made of polyurethane and should be soaked a few minutes in 70% alcohol prior to use. They will then slide over steel or plastic tubing and shrink when the alcohol evaporates. This makes a tight and leak-proof connection.

Art. No:	Colour:
1002	Blue
1003	Red

Pkg of 10



BALANCES



ANIMAL BALANCE

High quality German made animal balance. The built in "Animal weighing program" filters out strong vibrations for stabilizing the reading.

Art. No:	
PCB 2000-1	
Readout g:	0,1 g
Max weight g:	2000 g
Min weight g:	0,2 g
Reproducibility g:	0,1 g
Linearity g:	+/- 0,2 g
Weighting plate:	130x130 mm



ORGAN BALANCE

High quality German made organ balance with high readout and reproducibility.

Art. No:	
EW 220-3NM	
Readout:	0,001 g
Max weight:	220 g
Min weight:	0,02 g
Reproducibility:	0,002 g
Linearity:	+/- 0,002 g
Weighting plate:	Ø 118 mm



ANALYTICAL BALANCE

The bestseller in analytical balances, with high-quality single-cell weighing system and EC type approval. High quality German made organ balance with high readout and reproducibility.

Art. No:	
ABJ 320-4NM	
Readout:	0,1 mg
Max weight:	320 g
Min weight:	0,01 g
Reproducibility:	0,2 mg
Linearity:	+/- 0,3 mg
Weighting plate:	Ø 91 mm



MOISTURE ANALYSER

400W Infrared moisture analyzer with graphics display and a vast database. Balance contains memory for automatic sequence of 100 complete drying programs and the last value measured remains on the display until it is replaced by a new measurement. The large ventilation slots in the heating cover ensure that moisture exhausts quickly which leads to shorter drying times.

Art. No:	
MLS 50-3D	
Readout g:	0,001 g / 0,01 %
Max weight g:	50 g
Temperature:	40-160°C
Reproducibility:	0,02% / 10 g
Drying modes:	Standard, Gentle, Gradual, Rapid

MEASURING INSTRUMENTS



IWANSON

Art. No:	Size:	Resolution:
10-993-010	0-10 mm	0,1 mm



CASTROVIEJO

Art. No:	Size:	Resolution:
42-850-020	0-20 mm	0,5 mm

Used for precise measurement during surgery.

STAINLESS STEEL RULER

Art. No:	Size:
302-336-300	0-300 mm



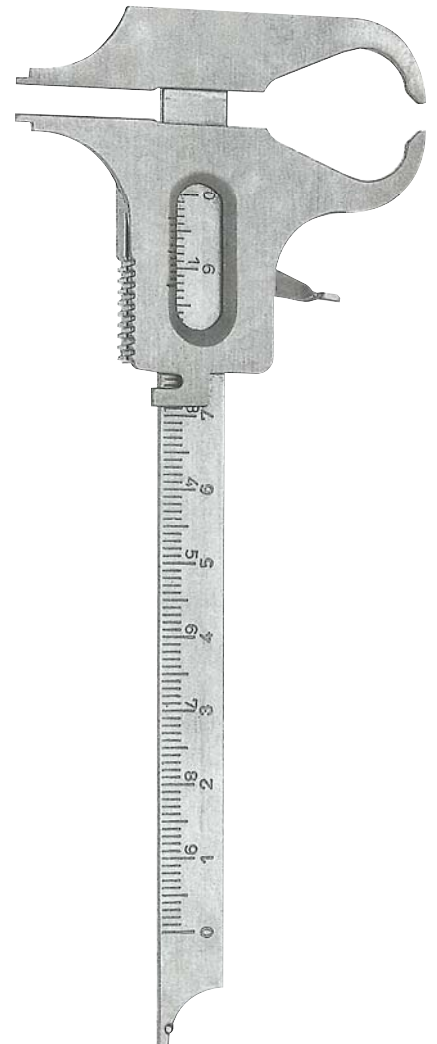
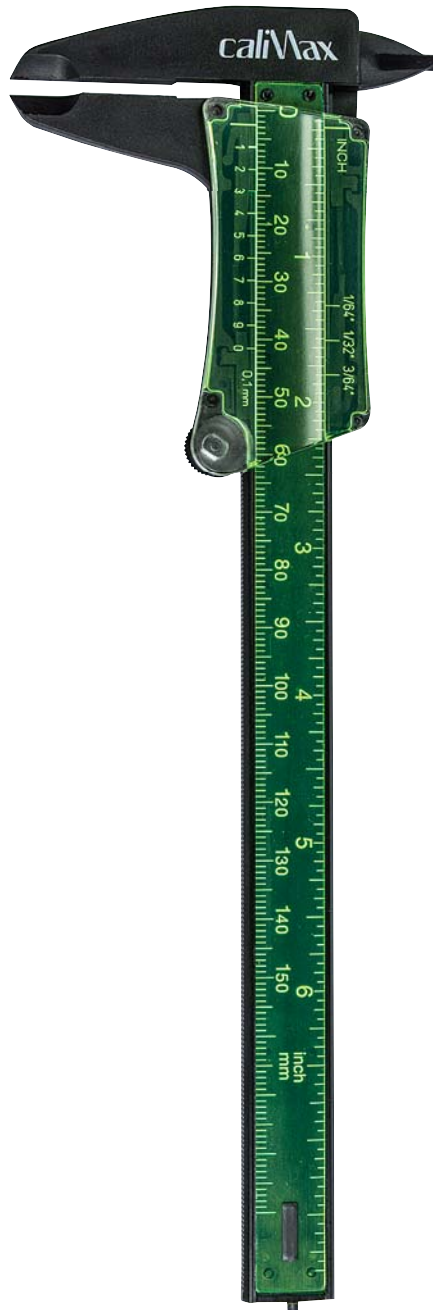
Metric and inch graduation

CALIPER

Digital Caliper – High quality electronic caliper with 1–150 mm range. Inch or mm and "tare" function over the whole measuring range.

Plastic Vernier – Metric and Inches to 0,1 mm or 1/64".

Boley – Stainless Steel Caliper, metric scale.



DIGITAL CALIPER

Art. No:	Range:
80-759-20	0–150 mm

PLASTIC CALIPER

Art. No:	Range:
30087-20	0–15 mm

BOLEY CALIPER

Art. No:	Range:
10-997-100	0–100 mm

BOOKS

ANATOMY

The mouse is the most widely used laboratory mammal in biomedical research such as evaluation of the safety and effectiveness of new pharmaceutical products, research in tumor suppression, and vaccine and monoclonal antibody proportional studies.

Rats are used to research a wide field including preclinical tests, microbiological research, carcinogenic experiments, neurology, physiology, toxic tests, pharmacological effectiveness tests, etc. Anatomy is one of the important basic sciences and although much progress has been recently made in the field of human imaging diagnosis, information on sectional anatomy of experimental animals is lacking at present.

Features of these color atlases are as follows:

- The specimens were not fixed but kept in a frozen state so that photographic information close to the living state could be obtained.
- All photographs are in color for detailed observation.
- Each atlas has numerous color pages, 2 pages of black and white macro-anatomical photographs are provided making the sectional atlas more comprehensible.
- All pages consist of photographs so as to make the detail more comprehensive and three-dimensional than the usual pictorial atlas.
- The anatomical terms used are in Japanese and English.

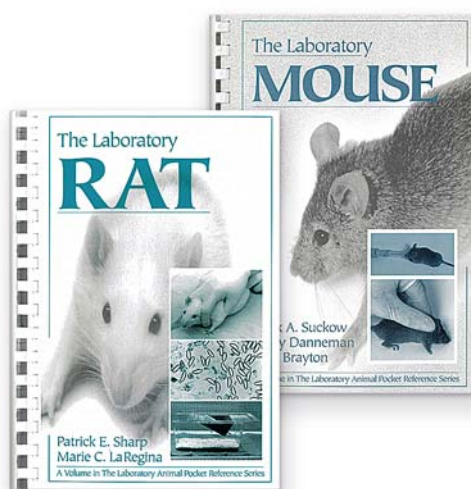


Art. No:	Title:
AT1010	A colour atlas of sectional anatomy of the mouse
AT1020	A colour atlas of sectional anatomy of the rat

THE LABORATORY ANIMAL

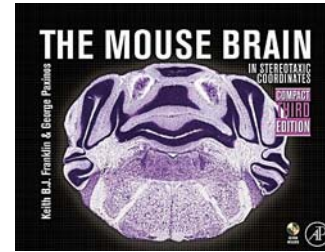
These books detail basic information and common procedures for individuals performing research with rat or mouse. The guides include; duties of animal facility management, animal husbandry & veterinary care, regulatory compliance, and technical procedures. Basic information and common procedures are presented in detail. 140 pages.

Art. No:	Title:
AT1030	The laboratory mouse
AT1040	The laboratory rat



THE MOUSE BRAIN IN STEREOTAXIC COORDINATES

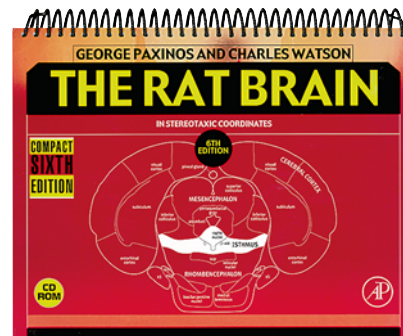
The Mouse Brain in Stereotaxic Coordinates is the most widely used and cited atlas of the mouse brain in print. It provides researchers and students with both accurate stereotaxic coordinates for laboratory use, and detailed delineations and indexing of structures for reference. The photographs of the sections and the intermediate sections are also provided on the accompanying CD. In addition, the compact version has a large introduction on stereotaxic surgery and the use of the atlas in the lab, as well as a number of panoramic simplified diagrams for student instruction.



Art. No:	Title:
AT1080	The mouse brain in stereotaxic coordinates

THE RAT BRAIN IN STEREOTAXIC COORDINATES

The Rat Brain in Stereotaxic Coordinates is a smaller sized abridged version of the most referenced work in neuroscience (over 35,000 citations for this atlas). This book includes an introduction for students to some of the major current concepts in neuroanatomy: neuromeres and brain development. Students and seasoned researchers will find herein the first major unified nomenclature ontology tree based on development. The atlas features 161 coronal photographic plates and 161 juxtaposed diagrams. The diagrams are in color, but the photographs are in black and white. The book is in full color and also features the sagittal and horizontal planes.



Art. No:	Title:
AT1100	The rat brain in stereotaxic coordinates

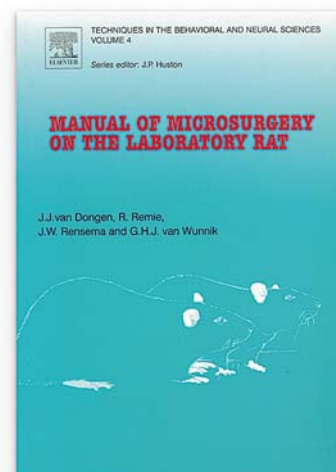
MANUAL OF MICROSURGERY ON THE LABORATORY RAT

This is a manual describing experimental microsurgical technique in great detail. The manual includes general information about the rat, i.e. anatomy, anesthesia and sterility and a wide range of general techniques:

- Handling of the animal
- Injections and other administering
- Preparation of cannulae and other special aids
- Suture techniques
- Anastomosis
- Blood sampling

The sections on experimental techniques are covered in the greatest depth. All essential steps that are taken during the operations are shown in meticulously accurate drawings thus making the manual an accurate instrument in teaching and studying microsurgery and microsurgical techniques.

Some of the experimental techniques described are cannulation of the portal vein; renal vein; iliolumbar artery; thoracic duct and more.



Art. No:	Title:
AT1110	Manual of microsurgery on the laboratory rat

SURGICAL EQUIPMENT

When performing surgery it is vital that the researcher has the right equipment and support to be able to achieve a correct result. Whether it is a heating pad for animal comfort during surgery, a glass bead sterilizer or magnifiers and LED lights we have a wide and specialized range of products for small animal surgery.



HOMEOTHERMIC SYSTEMS	136
HEATING PLATES	137
THERMOMETERS	138
STERILIZERS	139
LIGHTS & MAGNIFIERS	140
SURGICAL TABLES	143
CAUTERY	145
SURGICAL ACCESSORIES	145

HOMEOTHERMIC SYSTEMS

HOMEOTHERMIC MONITORING SYSTEM

The Homeothermic Monitoring System is a closed loop temperature control system for small rodents. Utilizing a small, flexible rectal probe to monitor the animal's core temperature and a heating pad to provide heat input, the subject's core body temperature can be accurately controlled. The control unit receives temperature feedback from the rectal probe and adjusts the current to the pad accordingly.

The easy to use LCD touch screen allows users to set a target temperature and clearly view the subject's current core body temperature, as well as the set temperature, at all times. Additionally, audible alarms can be set to advise the user should the animal's core body temperature deviate $\pm 1^\circ$ from the set temperature.

Heating pads are available in three sizes to fit all your surgical needs. The standard size is appropriate for mice and rats and fits nicely into standard stereotaxic instruments. Two additional sizes are available to fit the common stereotaxic instrument adapters. The pads are flexible enough to fully wrap the animal, which allows the animal to be warmed from all sides rather than just the front or back.



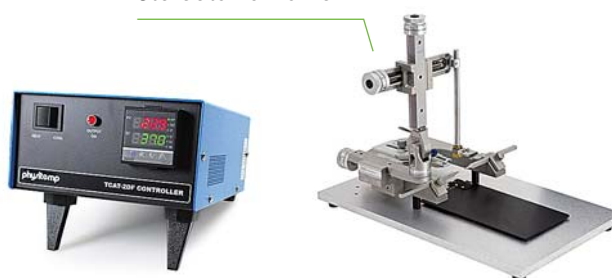
Art. No:	Description:
55-7020	Homeothermic Monitoring System incl. Probe & Standard Pad 12x20,5 cm
55-7021	Flexible Rectal Probe, O.D. 1,6 mm
55-7022	Heating Pad Standard, 12x20,5 cm
55-7023	Heating Pad Small, 7x14,5 cm
55-7024	Heating Pad for Mouse, 3,7x14,5 cm

TCAT-2LV

The TCAT-2 Series controllers provide accurate temperature control in a variety of laboratory applications and may be used to maintain the body temperature of anesthetized animals during surgery or stereotaxic procedures.

The TCAT-2LV model provides a low-voltage DC output for electrically sensitive applications where AC frequencies might interfere with other monitoring devices. It comes standard with a built in DC power supply designed to operate with our Heating Plates for small rodents. The TCAT-2LV utilizes a dual set point control circuit to prevent a heating element from overshooting the control point due to thermal lag in the control system. This is an important feature in preventing burns due to incorrect control settings or faulty feedback sensor.

HP-1M on a Stereotaxic Frame



Art. No:	Description:
TCAT-2LV	Temperature Controller Unit DC outlet
RET-2-ISO	Isolated animal rectal probe for rat
RET-3-ISO	Isolated animal rectal probe for mice
RET-4	Rectal probe for neonatal mice
HP-1M	Heating Plate, 21,5x11cm
HP-4M	Heating Plate, 3,8x10,1 cm

HEATING PLATES

SELF REGULATING HOT PLATE

The Self Regulating Hot Plate consists of the Hot Plate, control unit and cables, with a very compact and slim design. This high quality Hot Plate has a very uniform temperature distribution on the usable surface, indicated by the white frame. The Self Regulating Hot Plate is designed to keep the Hot Plate at the preset temperature, which is easily set by the operator within the range 27°C to 45°C. The lowest temperature at which the Hot Plate should be used is 2°C above the ambient temperature. The Hot Plate itself consists of an aluminium plate with a device for maintaining the temperature (a heating element and a temperature sensor) and a flat casing – giving the plate its very low and compact design. The width of the plate allows the operator to rest the hands on the plate while operating.

The Hot Plate can easily be cleaned or disinfected and measures 27,4 x 21,4 x 1,8 cm.



Also available in A3 size

Art. No:	Description:
HP 062	Control unit and Hot plate

MTC-1 SELF-REGULATING PLATE

The MTC-1 is a low cost temperature controller that works as a self-regulating heating plate. Utilizing a precision highly stable platinum RTD as the feedback sensor, this inexpensive controller will display and maintain a set temperature within +/- 0.1°C. Backlit LCD readout provides continuous display of temperature with 0.1 degree resolution. The set point is easily adjusted from just above room temperature up to 99.9 degrees C via a 20 turn potentiometer. A momentary switch allows the user to toggle the display between the set and run temperatures. The unit can be used with the heating plates but also for other applications as maintaining the temperature of 60cc perfusion syringes and small heated surfaces.



Art. No:	Description:
MTC-1	Micro Temperature Controller
HP-1M	Heating Plate, 21,5x11cm
HP-4M	Heating Plate, 3,8x10,1cm

DELTAPHASE® ISOTHERMAL PAD

The Deltaphase® Isothermal Pad is based on the thermodynamic principle that a heat releasing phase change is isothermal, that is: that it occurs at constant temperature. A unique chemical solution is contained within a durable pouch. At room temperature this solution is in solid form. When heated to 39° using a microwave, water bath or heated oven the solution becomes fluid and the pad is ready for use. The pad acts as a source of heat, but cannot overheat once it has reached its phase change. The pad can maintain body temperature for approximately 3 hours. No electricity, no control box, no wires.



Art. No:	Description:
39DP	Size 20x20x2 cm

THERMOMETERS



BAT-12

The world's first thermocouple thermometer, Model BAT-4, was designed in 1969 by Physitemp Instruments, Inc. It was soon being used in the lab, factory, hospital O.R. and in the field. The new BAT-12 has evolved from the BAT-4 with many improvements over the years for fitting numerous of applications. A very rugged and reliable thermometer for high throughput research with readings to 0.1° C; near perfect stability. Physitemp products are of the highest quality and many other products may state similar resolution but are not as accurate as Physitemp units or probes.

The BAT-12 has a sealed construction and comes with a carrying case and 3-point stand. BAT-12 is the ideal instrument for use with Type T Thermocouple microprobes for a wide variety of applications.

Range:

-100°C to +200°C

Accuracy:

0.1°C ± 1 digit between 0-50°C; 0.1% ± 1 digit over full range.

Resolution:

0.1°

Conformity:

Follows NIST thermocouple tables within 1 digit Ambient Temperature.

Compensation:

Auto-compensated to 0.1°C from 0°C to 50°C.

Readout:

3 1/2 digits, 1/2" liquid crystal numerals.

Input Socket:

Miniature, quick disconnect, copper-constantan.

Analog Output:

10mV per degree C, approx.

Power Supply:

220V and Ni-Cad battery with charger.

Size, Weight:

127 x 63 x 152mm -1 kg, including carrying case.

Art. No:

BAT-12

Description:

Thermometer, AC or battery operated



For use with Type T Thermocouple microprobes

TW2

The TW2 is an affordable handheld thermometer with self-calibration which takes place each time the unit is powered on. Each TW2 includes a traceable calibration certificate with actual test data. The TW2 is compact, easy-to-operate and reliable with either C or F as unit. For use with Type T Thermocouple microprobes.

Art. No:

TW2

Description:

Handheld Thermometer



RECTAL PROBES (RET-SERIES)

Rectal probes for rats or mice. For fast intermittent measurements and with smooth ball tip. The RET-4 Rectal probe for very small animals (neonatal mice) is also now available. Flexible polyurethane sheath with smooth rounded tip.



FLEXIBLE IMPLANTABLE PROBES (IT-SERIES)

Implantable in semi-solids and tissue with needle (supplied), also for immersion in various solutions and rectal temperatures of small animals. Totally sheathed in chemical resistant Teflon and quite rugged. Max Temp. 150°C. Isolated. Type # designates needle gauge.



NEEDLE MICROPROBES (MT-SERIES)

Fast-response needle probes for instant readings in tissue, semisolids, liquids. Also for very small specimens, powders and materials. Needle tip is sealed to ensure only stainless steel contacts specimen. Max. temp. 200°C. Smallest microprobes give fastest reading.

Short probes are easier to insert and last longer.

STERILIZERS

The hot bead sterilizer provides instant and effective sterilization of surgical instruments directly at the workplace. The working temperature of the glass beads is 250°C and it sterilizes in 10–15 seconds, and after 30 seconds the sterilized parts are cool enough for use. The sterilizers exterior stays cool even after being used a full day's work and is safe to use even in laminar flow hoods. It is available with two different depths; 8 cm (most common) and 14 cm.

Please remember to properly clean the instruments with a pH neutral detergent and distilled water before placing them into the sterilizer.

TYPE T THERMOCOUPLE PROBES

We sell Type T thermocouple microprobes from Physitemp Instruments, Inc. Below are the most common versions of probes we sell but please contact us if you need any other kind as we also can supply general, surface, oral, esophageal probes as well as thermocouple wire with an unmatched 0.1°C accuracy.

Art. No:	Description:
RET-2	Rectal probe for rat
RET-3	Rectal probe for mouse
RET-4	Rectal probe for neonatal mouse
IT-14	14G Implantable Probe, Dia 1,27mm, Time Constant 0,3 sec.
IT-18	18G Implantable Probe, Dia 0,64mm, Time Constant 0,1 sec.
IT-21	21G Implantable Probe, Dia 0,41mm, Time Constant 0,08 sec.
IT-23	23G Implantable Probe, Dia 0,23mm, Time Constant 0.005 sec.
MT-23	23G Needle Probe, Dia 0,64mm, Time Constant 0,15 sec.
MT-26	26G Needle Probe, Dia 0,46mm, Time Constant 0,1 sec.
MT-29	29G Needle Probe, Dia 0,33mm, Time Constant 0,025 sec.



Art. No:	Depth:	Description:
✓ 31100	8cm	Steri 250
31170	14cm	Steri 350
31120		Glass Beads

✓ = Most Popular

LIGHTS & MAGNIFIERS

HIGH DEFINITION MICROSCOPE

– Redefining Microscopy & Microsurgery.

All-in-One optical inspection system with 12:1 optical zoom, auto focus, integrated illumination and on-board controls. Produces crisp picture of your inspection objects directly on your LCD monitor or PC. Versatile, Scalable and Cost effective video inspection system for fast, ergonomic and reliable optical inspection.

The C12 provides relief to eyes, neck and shoulders. The unique ergonomic design with 245 mm working distance allows operators to sit comfortably in a good working position and carry out their optical inspection tasks efficiently.

Apart from imaging excellent details, C12 offers true ease of use and minimal interaction with controls and settings. Basic attributes, such as zoom, brightness and colour can be controlled by the user through on-board buttons on top of the device.

Due to large size of its image sensor and pixel elements, C12 provides excellent image and is delivered with optics for 2.5–30x magnification (when using a 27" monitor) which is comparable to common inspection microscopes. If further magnification is needed, Macro lenses can be added to magnify up to 100x.

A remote camera control is a user-friendly ergonomically designed device for advanced control of INSPECTIS camera parameters in addition to the on-board control buttons.



Camera and lens parameters like Zoom, Manual/Auto Focus, Iris, Brightness, Colour, and Picture Mode can be set and controlled directly. In addition operator can enable or disable Zoom Display, add a cross hair overlay, freeze or rotate the image. The remote camera control is able to Save and Recall two stored configurations in its internal memory."



Art. No:	Description:
HD-010	Inspectis C12
HD-010-C	Inspectis C12 with SD-card reader
HD-020	Remote Camera Control

*Reliable and Cost Effective
High Definition Camera Microscope.*



STEREOMICROSCOPE

The KERN OZO & OZP models are very robust and easy to use stereo microscopes with a zoom function operable from both sides for an above-average enlargement range. Their qualities, the flexible pillar stand and the optional integral, powerful and long-life LED incident and transmitted illumination make these models especially flexible. On all models it is possible to adjust the diopter on both tubes. A trinocular model version, allowing a camera to be fitted, is also available.

These models are optimally suited to work in biological laboratories and research establishments. The design of these special optical system allows a large depth of field, where only very little refocussing at the zoom enlargement is necessary.

In addition, thanks to its precise resolution, it provides high-contrast images, an extra-large field of view and is absolutely true-to-colour. These models offer the best possible ease of use thanks to their large working distance providing a large working surface.

The multitude of auxiliary objectives, eyepieces, universal stands and additional accessory parts facilitates use in all common stereo microscopy applications. One of the central features of this variable and simultaneously robust series of microscopes is the stable and precisely adjustable mechanism. This is underlined by the functional and ergonomic design.



Many other microscopes are available



Description:	Art. No: OZP-555	Art. No: OZO-552
Tube:	Binocular	Binocular
Optical system:	Greenough	Greenough
Brightness:	Adjustable	Adjustable
Magnification ratio:	9,2:1	8,8:1
Tube:	35° inclined	35° inclined
Interpupillary distance:	52–76mm	52–76mm
Diopter adjustment:	Both-sided	Both-sided
Stand:	Pillar style + Universal stand with jointed arm	Pillar Style
Illumination:	4,5W LED Adjustable Ring Light	3W LED (incident); 3W LED (transmitting)
Eyepiece:	HSWF 10x Ø 23 mm	HSWF 10x Ø 23 mm
Field of view, mm:	Ø 38,3–4,2	Ø 28,75–3,3
Objective Zoom:	0,6x–5,5x	0,8x–7x
Magnification:	6x–55x	8x–70x
Working Distance, mm:	108	108



MAX DETAIL SPECTACLES

These magnifying glasses are portable and lightweight. The ear pieces can easily be bent and adjusted for a secure fit. They have a large field of view of 110 mm and 2x magnifications. The working distance is approx. 40 cm and the glasses weigh only 49 g. A knob on each side lets the user adjust +/- 3 dioptres and they are delivered in a practical hard foam case.

Art. No:	Description:
28030-20	Max Detail Spectacles
162452	Max Detail Spectacles with LED
16246	Max Detail Clip-on



TABLE MAGNIFIER

This magnifier provides an illuminated platform suitable for any working condition. The open design allows for a spacious working platform. Supplied in a microfiber pouch for protecting and cleaning the lens.

- Magnification: 2.8x
- Lens-to-Image Distance: 75 mm
- Lens Size: 100 x 75 mm
- Light: LED

Art. No:	Description:
28020-28	Scribolux Magnifier



Excellent Illumination

COLD LIGHT ILLUMINATION SYSTEM

The KL300-LED suits most laboratory requirements for detailed and accurate illumination, and its very small footprint makes it ideal for small animal surgery. The LED lights allows for more than 50.000 operating hours and is delivered with 2 light guide arms, 32mm clamping ring for attaching to column and also a heavy base for stand-alone setup.

Art. No:	Description:
KL300-LED-2	2 light guide illumination system



Magnification: 2.5x
 Lens Size: 76 mm
 Arm Length: 600 mm

varioLED FLEX

The varioLED FLEX is easy and precise to use with its flexible gooseneck and tiltable magnifying lens with distortion-free image and edge-to-edge sharpness. The gooseneck is designed with a protective cover for improved hygiene. The magnification lens has a LED ring illumination for extra illumination.



Art. No:	Description:
28015-25	varioLED FLEX Magnifier light

SURGICAL TABLES

SILICONE MAT

– The perfect companion while operating.

This silicone mat is designed for safe placement of instruments. It is also used as base in Stainless Steel Cases (see page 125), cut into desired size. The mat comes with holes for draining, is autoclavable and measures 30 x 20 cm.

Art. No:	Description:
20325-00	Silicone Mat, 30 x 20 cm

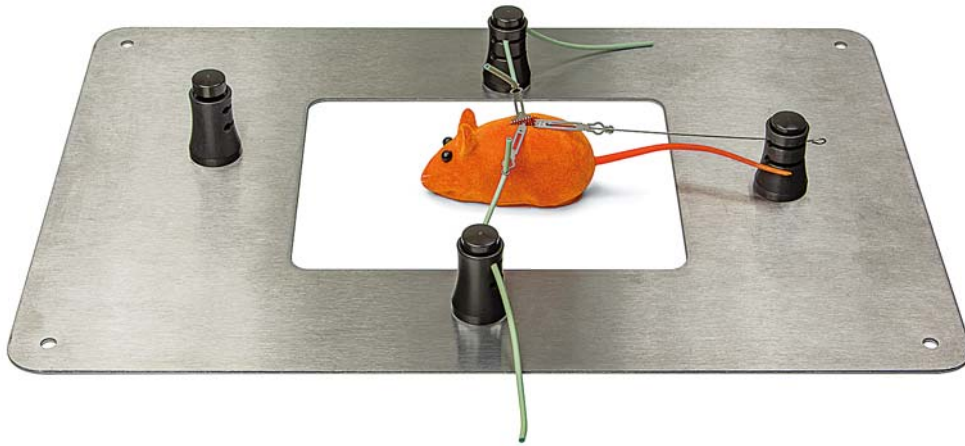
SILICONE PAD

– No more cloths and sponges during surgery.

This silicone pad is easily cleaned and can be autoclaved. It is approximately 6 mm thick and measures 30 x 20 cm. It can easily be cut in to smaller pieces to fit your needs and is excellent when using pins.

Art. No:	Description:
AT3020	Silicone Pad, 30 x 20 cm





SURGERY & RETRACTOR TABLE

This Animal Surgery System simplifies set-up procedure and provides the examiner with an excellent overview of the operative site and sets a new standard in procedural control.

The system allows researchers to operate independently, eliminating the requirement for an assistant and removes the distraction of improvised set-ups and thereby allowing the researcher's full attention on the surgical procedure with high repeatability.

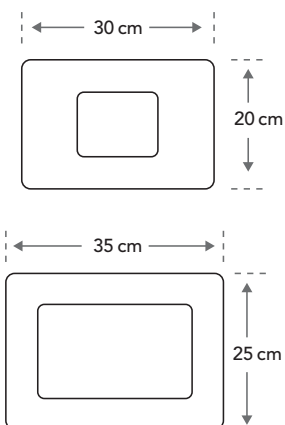
The system consists of three components:

- Base Plate
- Fixators
- Retractors

The Base Plates are made of ferro-magnetic stainless steel and are available in two sizes. Both plates have a window in the center which allows the animal contact with body temperature control systems. The window sizes are 10x13 cm for the small base plate and 15x25 cm for the large.

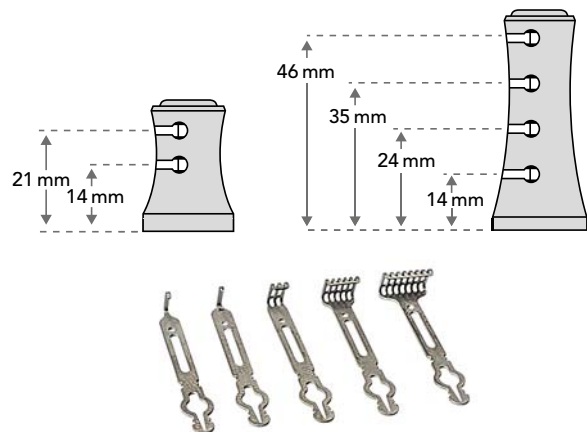
The Fixators are movable posts that contain rare earth magnets that attach anywhere on the animal table. A push-button top operates multi-level locking jaws that grip wires or elastomers firmly.

Complete depression of the push-button allows for insertion of the wires or elastomer while partial depression of the push-button allows for adjustment.



Fixators can also lock onto other lab components that require stabilization in the surgical setting, such as neurological or rectal probes or anesthesia delivery systems. The magnets do not interfere with lab electronics and can be used in close proximity (3 cm) to ferro-magnetic items.

The Retractors comes in 5 different sizes from 1 mm to 7,5 mm width, plus a single point, sharp tissue hook. These can be used with the retractor wire for static retraction or elastomer for dynamic retraction. The Retractor Tips are light and atraumatic to delicate tissue or membrane. The wires can also be re-formed to create restraints or engage other lab apparatus that need to be secured in the surgical field.



Art. No: ACD-014	Art. No: ACD-015
Small Setup	Mid-Size Setup
1 x Base Plate (20x30 cm)	1 x Base Plate (25x35 cm)
6 x 3 cm Fixators	6 x 6 cm Fixators
10 x Wire Retractors (10 cm)	10 x Wire Retractors (14 cm)
1 x 2 meter roll elastomer	
10 x assorted retractor tips, 2 of each style (1mm sharp, 1mm blunt, 2,5mm blunt, 5mm blunt, 7,5mm blunt)	

All items can be purchased individually e.g. fixators, base plate, retractor tips etc.

CAUTERY



CAUTERY SYSTEM

A low cost yet high quality reusable high-temp cautery system. The temperature reaches approximately 1000 degrees Celsius at the tip. The unit comprise of; one handle, two standard and two fine tips both non-sterile and two "AA" alkaline batteries and a foam-lined case. Both the batteries and the tips can be replaced.

Art. No:	Description:
18010-00	High Temp Cautery Kit (2 batteries, 4 tips)
18010-01	Straight Standard Tips, pkg of 10
18010-02	Straight Fine Tips, pkg of 10



DISPOSABLE PEN

Stop bleeding immediately with this handy disposable Cautery Pen. The Platinum tip reaches approximately 1200°C. The Pen has a cap that secures the on/off switch to avoid accidental operations while protecting the tip. This is a disposable instrument that should be discarded when the batteries are dead. Delivered sterile.

Art. No:	Description:
59016	Disposable Cautery Pen

SURGICAL ACCESSORIES

SUGI ABSORPTION SPEARS

Triangular shaped synthetic surgical sponges which absorbs fluids twice as fast, and three times more, than the best cotton sponges. They are made out of soft biocompatible proven material that doesn't leave any fiber residue.

Delivered sterile with or without handle.



Art. No:	Length:
42-886-200	7 cm

Pkg of 200



Art. No:	Length:
42-886-460	2 cm

Pkg of 500

SPONGOSTAN

Spongostan absorbable hemostatic gelatin sponge is a sterile, water-insoluble, malleable sponge intended for hemostatic use by applying to a bleeding surface. Spongostan will create a barrier together with fibrin which will stop the bleeding in 2–10 minutes and will be completely resorbed in 4–6 weeks. Spongostan has a neutral pH and can absorb x45 its own weight. Sterile 1 x 1 x 1 cm.



Art. No:	Description:
3216	Spongostan, pkg of 24



BONEWAX

Sterile wax for bone hemostasis. Bone wax is a sterile mixture of bees wax, almond oil and salicylic acid and is used to control bleeding on bone surface in thoracic, orthopedic and oral surgery as well as neurosurgery. The wax achieves local hemostasis of bone by acting as a mechanical barrier. Soft, kneadable and ready to use.

Art. No:	Description:
W810T	Bonewax 2,5 gr. pkg of 24

DERMABOND

Dermabond is a liquid topical skin adhesive used for wound closure. It has superior strength and microbial protection and single-layer application. When used together with sutures it adds 75% more strength to the wound closure.



Art. No:	Description:
AHVM12	Dermabond, Skin Adhesive, pkg of 12



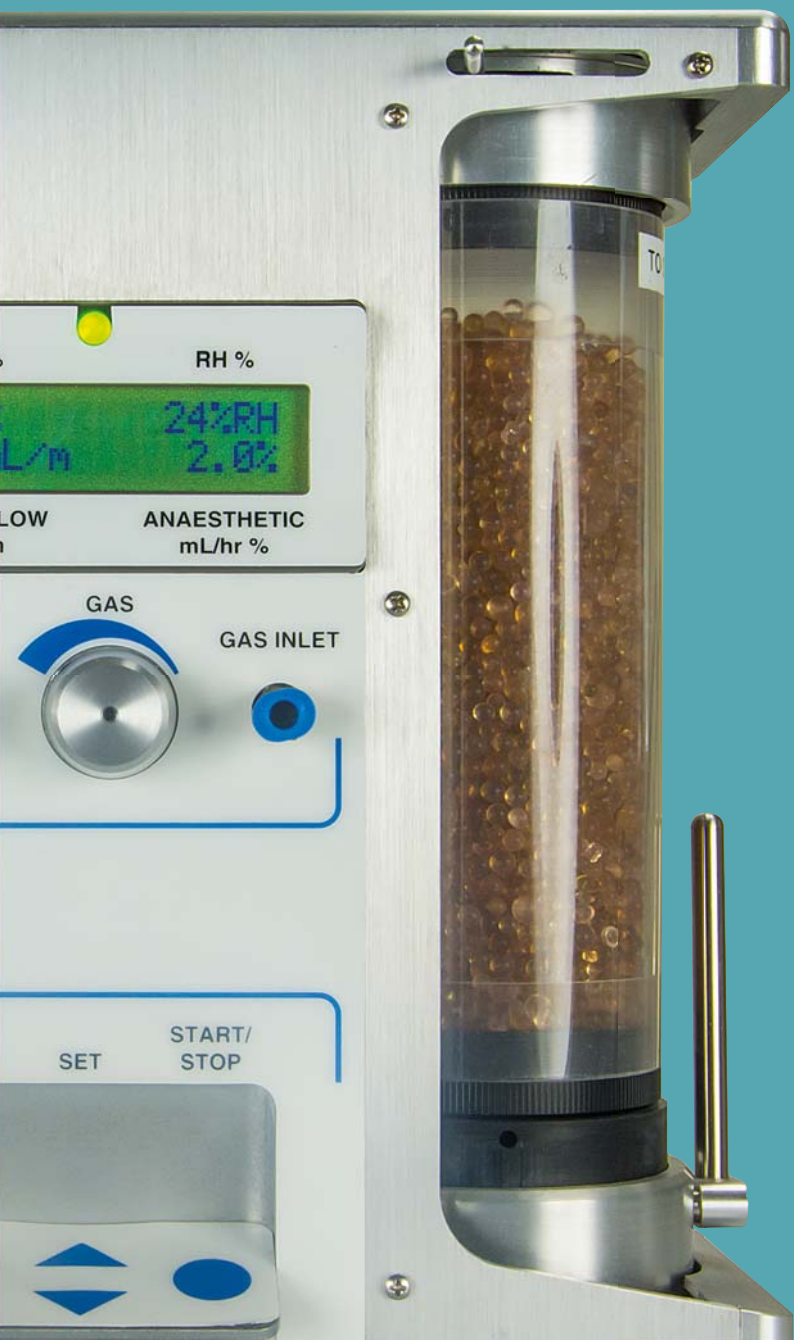
VETBOND

3M Vetbond tissue adhesive quickly and conveniently closes minor wounds, often eliminating the need for sutures and/or bandages while providing a physical barrier to protect wound while healing. Vetbond changes from liquid to solid state by polymerizing in seconds to seal the wound. It contains blue dye to allow user to easily see where products has been applied. Economical 3mL bottle with four reusable applicator tips.

Art. No:	Description:
1469SB	Vetbond 3 ml

ANAESTHESIA

Many regulatory authorities are recommending gas anaesthesia as the preferred method of anaesthesia instead of injected anaesthetics. It is easier to control the depth of the sedation, less risk of overdosing, less irritation to tissue and less likely to cause organ injury as well as a faster recovery.



ANAESTHESIA UNITS	148
SCAVENGER	150
INDUCTION CHAMBER	150
ANAESTHESIA MASKS	151
ACCESSORIES	152

ANAESTHESIA UNITS

U-410 ANAESTHESIA UNIT

The Univentor 410 Anaesthesia unit is a complete unit for Isoflurane anaesthesia for animals weighing from 50gr up to 500gr. It has a built-in flow meter for air and vaporizer calibrated for Isoflurane. The airflow as well as the isoflurane concentration are constantly shown on the display. Isoflurane is filled in a 10 ml gastight syringe and is dosed with exact precision into a small vaporizer where it is mixed with air and led to a chamber, mask or ventilator via a gas routing switch. Typical maintenance dose for mice is 2% Isoflurane and 200 ml/min air. With these settings approximately 1 ml Isoflurane is used per hour.

When the U-410 is in operation the % anaesthetic value and the airflow are constantly shown on the LED display. Both parameters can be continuously changed during operation. The U-410 has a built-in alarm if airflow or anaesthesia is blocked. The apparatus provides a very small footprint.

The U-410 comes in two different versions. One version operates with pressurized gas from a bottle or wall (max 1 bar) – Art. No 8323101. The other version, Art. No 8323102 is fed with ambient air from a small aquatic air pump (page 152).

Size: 23 x 13 x 10 cm
Weight: 1,8 kg



Art. No:	Description:
8323101	U-410 Anaesthesia Unit, incl. syringe & tubing
8323102	U-410 Anaesthesia Unit, incl. syringe & tubing. For airpump



U-1200/U-1250 ANAESTHESIA UNITS

The Univentor 1200 anaesthesia unit is an all-in-one unit for gas anaesthesia of animals from 50 to 500 grams, both for induction chamber, mask and ventilator.

The U-1200 unit offer a new way of anaesthetizing rodents. With a built-in airpump and airflow meter the user is getting an all-in-one apparatus. The unit has an inlet for external gas e.g. oxygen. This feature has been added to accommodate longer experiments when oxygen is recommended to minimize animal discomfort. The external gas is calculated as percentage of the total airflow and is, as the concentration of anaesthetic and total airflow, shown on the display.

Integrated in the U-1200 is a sound-alarm that is triggered if the liquid anaesthesia is running low, or if the output gas flow is too high/low.

The U-1200 are designed for anaesthetizing small animals, especially mice and rats. For that reason the airflow is lower than most other vaporizers. The design enables low and constant airflows which dramatically reduces the consumption of anaesthetics which benefits the user, animal and environment. The unit is calibrated for Isoflurane which is filled up in a 10ml gas tight syringe.

The Isoflurane is then dosed with exact precision into a small vaporizer where it is mixed with air, and external gas if required, and led to an induction chamber, mask or ventilator. Other liquid anaesthetics can also be used. The U-1250 has the additional benefit of an incorporated dehumidifier to reduce the relative humidity.



U-1200



U-1250

with dehumidifier

External gas inlet



Art. No:	Description:
8336000	U-1200 Anaesthesia Unit, incl. syringe & tubing
8336050	U-1250 Anaesthesia Unit incl. syringe & tubing. With dehumidifier.



VENTILATOR

Visit agnthos.se

SCAVENGER

The Univentor 2010 Scavenger is designed to collect and inactivate any surplus anaesthetic gas that is produced when using the Univentor 410 or 1200/1250 units to provide a safer working environment.



The gas is collected and passed through active coal contained in a cartridge. As the cartridge approaches saturation successive alarms are triggered providing ample warning. The unit has three different alarms to allow the user to change the cartridge at desired values.

When using an induction chamber and a mask the Scavenger Gas Routing Switch should be used to enable correct and safe switching between the two. As the U-2010 is designed for the user in focus it is equipped with a sensor test. This is performed so that the user can ensure that the sensor is working properly and that no exhausts is entering the ambient air. This is easily done using the sensor test adaptor delivered with the unit.

Art. No:	Description:
8338001	U-2010 Scavenger, with 4 charcoal cartridges
8433020	Gas Routing Switch Scavenger
8438025	Active coal cartridge, 4 pcs

INDUCTION CHAMBER

The induction chamber is made out of clear acrylic for induction of anaesthesia in the animal. The chamber is opened at the top where the animal is introduced. The transparent acrylic permits the animal to be kept under constant observation during the induction phase.

The Induction Chamber is designed so that the anaesthetic gas, which is heavier than air, fills from the bottom. Surplus gas is removed from the top and either connected to a Univentor 2010 Scavenger or ventilation bench. The lid is heavy enough to prevent escapees whilst allowing easy access.

When connected to a Gas Routing Switch or Scavenger Gas Routing Switch the anaesthetic gas is swiftly routed from the chamber to mask etc. when moving the animal to the surgical site.



Art. No:	Description:	Dimensions (LxWxH):
8329001	Mouse, 0,8 L	160 x 120 x 135 mm
8329002	Rat, 1,4 L	220 x 120 x 135 mm

ANAESTHESIA MASKS

The anaesthesia mask is made of metal and black Teflon. It is a double mask with a side outlet for gas evacuation. Due to the design (flat at the bottom) and weight, the mask lies very secure on the table.

Art. No:	Description:
9001001	Anaesthesia mask for mouse
9005050	Anaesthesia mask for rat



These anaesthesia masks are built on the metal/teflon mask design but are made of 100% delrin for MRI compatibility.

Art. No:	Description:
9001001-D	Delrin Anaesthesia mask for mouse
9005050-D	Delrin Anaesthesia mask for rat

Model 906 Rat Anesthesia Mask and Model 907 Mouse Anesthesia Mask are designed to work directly with the animal adaptor in a stereotaxic setup. Model 906 design includes a dorsal adjustment screw which can be used to apply pressure down onto the nose for securing upper jaw onto adaptor tooth bar. A rubber seal insert lines the internal cavity of the rat anesthesia mask. Inlet and outlet ports are 8 mm outside diameter.

Art. No:	Description:
907	Stereotaxic anesthesia mask for mouse
906	Stereotaxic anesthesia mask for rat



ACCESSORIES

SYRINGE

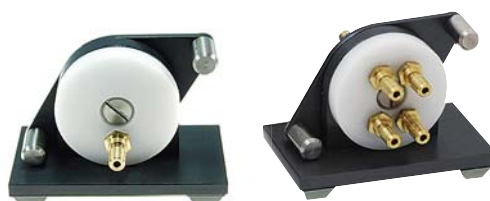
This 10ml syringe is manufactured specifically for Univentor and our anaesthesia units. As a precaution many of our customer have spare syringes to avoid surgery interruption in case the syringe accidentally breaks.



Art. No:	Description:
7751001	10 mL Gas tight syringe

GAS ROUTING SWITCH

The gas routing switch is used for routing the gas either to the induction chamber, anaesthesia mask or other user-defined applications. The design of the switch ensures a quick and accurate change of the gas direction. When working with the U-2010 Scavenger a special switch is available for routing the excessive gas back to the Scavenger.



Art. No:	Description:
8433005	Gas Routing Switch
8433020	Gas Routing Switch Scavenger

AIR PUMP

A small compact air pump for use with U-410 air pump version (art.no. 8323102). This is a membrane pump that takes room air and deliver it with right pressure to the anaesthesia unit.



Art. No:	Description:
EHEIM-100	EHEIM-100 Airpump

REDUCTION VALVE

This standard reduction valve is sold for use with U-410 and U-1200/1250 anaesthesia units to lower the incoming pressure.



Art. No:	Description:
2436050	Reduction Valve

PUMPS

AgnThos offers an extensive selection of syringe- and peristaltic pumps to suit the needs of a wide range of research applications. Pumps, which offer features such as multi-channel pumping, computer control, analog control, low electrical noise and a wide range of fluid flow rates. High accuracy and reliable pumps for high throughput research, Microdialysis, perfusion and more. Totally implantable micro infusion pumps for those high-valued studies are also available.



SYRINGE PUMPS	154
PERISTALTIC PUMPS	158
IMPLANTABLE PUMPS	159

SYRINGE PUMPS

LEGATO® 100 & 110

– Single Syringe Pump

Entry level pump in the Legato series. These pumps offer the user flow rates with selected target volumes or time values to control the total infusion. The Legato 100 is ideal for electrospinning, nutrient feeding, mass spec calibration and other applications where a single syringe is used. The Legato 110 is based on the Legato 100. It also offers infuse and withdraw flow control and programmability for up to two multi-step programs of 50 steps each. This pump is ideal for more complex multi-step dosing and has multi-mode operation including infusion only, withdrawal only, infusion and withdrawal and withdrawal/infusion modes.

- Single syringe 0.5 µl to 60 ml
- Wide flow range up to 88ml/min
- Two Multi-step Programs (Legato 110)
- Multi-mode operations (Legato 110)



Art. No:	Description:
Legato 100	Single Infusion Syringe pump
Legato 110	Single Infusion/Withdrawal Syringe pump

LEGATO® 101 & 111

– Dual Syringe Nanoliter Pump

These pumps are ideal for surface plasma resonance, organic synthesis, and other applications where dual syringes are required with small volumes under 10 ml.

These pumps has a wide flow rate range from 1.26 pl/min to 25.99 ml/min depending on syringe size. The Legato 111 is based on the Legato 101. It also offers infuse and withdraw flow control and programmability for up to two multi-step programs of 50 steps each.

- Two syringes 0.5 µl to 10 ml
- Minimum flow range 1,26 pl/min for a 0,5 µl syringes
- Two Multi-step Programs (Legato 111)
- Multi- mode operations (Legato 111)



Art. No:	Description:
Legato 101	Dual Syringe Nanoliter Pump Infusion only
Legato 111	Dual Syringe Nanoliter Pump Infusion/Withdraw, programs

LEGATO® 180 & 185

– Single & Dual Syringe Picoliter Infuse/Withdraw Pump

This pump is the ultimate in precision flow delivery. It offers the most stable flow delivery of all the Legato products. The Legato 180 & 185 have a finer lead screw and a different pulley ratio from the Legato 101/111. The Legato 180 & 185 offer multimode capability and 2 multi-step programs, each with 50 steps. The Legato 180 & 185 are the ideal pumps for flow chemistry and small volume infusions or withdrawals of <10 ml.

- Legato® 185: One Syringe 0.5 µl to 60 ml
- Legato® 180: Two Syringes 0.5 µl to 10 ml
- Minimum flow rate 0.540 pl/min for a 0.5 µl syringe
- +/-0.35% Accuracy
- Two Multi-step Programs
- Multi-mode Operation



Art. No:	Description:
Legato 180	Dual Syringe Picoliter Pump, Infusion/Withdrawal
Legato 185	Single Syringe Picoliter Pump, Infusion/Withdrawal



LEGATO® 130

– Single Syringe Nanoliter Infuse/Withdraw Pump

The Legato® 130 works exclusively with micro syringes from 0.5 µl to 1000 µl. It has a remote pump head which can be placed close to the experiment to eliminate dead volume with long tubing. The remote pump head makes it ideal for use with a micromanipulator, stereotaxic and other clamping devices. The syringe plunger can be tightly secured with a movable mounting screw, eliminating any movement of the syringe. The new fixed cable with the remote head to the controller ensures the pump head and the controller are secure.

- Remote Pump head
- 0.5 µl to 1000 µl syringes
- Minimum flow 3.66 pl/min (0.5 µl syringe)
- Maximum flow 3.818 ml/min (1000 µl syringe)



Art. No:	Description:
Legato 130	Single Syringe Nanoliter. Infuse/Withdraw Pump

LEGATO® 200

– Dual Syringe Infusion Pump

Infuse Only Syringe Pump. Accommodates 2 syringes 0.5 µl to 140 ml. User definable flow rates with selectable target volumes or time values to control the total infusion volume. High resolution color touch screen in a full metal chassis with unparalleled ease of use. With an advanced microstepping techniques the pump delivers up to 75 lbs linear force.

- Holds one or two syringes from 0.5ul to 140ml
- Flow range from 3,06pl/minv – 105ml/min
- Built in syringe table
- USB port
- Continuous mode of operation



Art. No:	Description:
Legato 200	Dual Syringe Infusion Pump

LEGATO® 210 & 210P

– Dual Syringe Infuse/Withdraw Pump and Multistep Programming

Based on Legato 200 the 210 and 210P accommodates 2 syringes 0.5 µl to 140 ml. This unit supports infuse only, withdraw only, infuse/withdraw, withdraw/infuse and continuous mode. User defined flow rates with selectable target volumes.

The Legato 210P features multi-step programming with user defined configurations/programs of up to 1000 steps. Up to 40 programs of 25 steps each can be stored in memory.

- Holds one or two syringes from 0.5ul to 140ml
- Flow range from 3,06pl/minv – 105ml/min
- Built in syringe table
- USB port
- Continuous mode of operation



Art. No:	Description:
Legato 210	Dual Syringe Infuse/Withdraw Pump
Legato 210P	Dual Syringe Infuse/Withdraw Pump and multistep programming

U-801 SYRINGE PUMP

– Designed for Microdialysis

The Univentor 801 is a microdialysis syringe pump designed for a very constant and accurate flow with high precision and reliability. A very small and affordable syringe pump.

The Univentor 801 syringe pump operates with a DC motor and advanced electronics, ensuring a very quiet constant and pulse-free flow. The U-801 pump is pre calibrated for 1,0; 2,5 or 5,0 ml syringes with 60 mm graduation length with maximum flow rates of 25 µL/min, 62.5 µL/min and 99.9 µL/min respectively. A built in flush mode can be used to fill the system at the maximum flow rate.



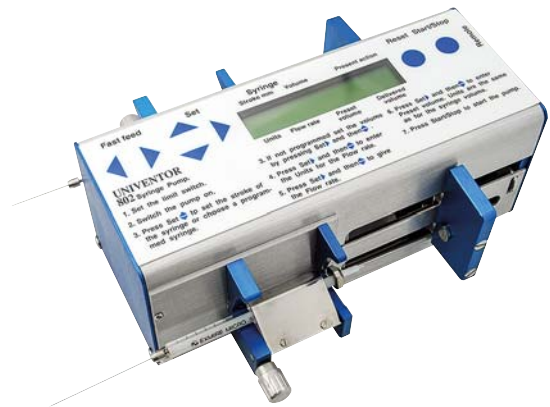
Art. No:	Description:
8301300	U-801 Syringe Pump

U-802 SYRINGE PUMP

– Designed for Fast and Easy Infusion

The Univentor 802 Syringe Pump is a precise, flexible and very reliable pump that will operate any syringe within clamping range. The Univentor 802 Syringe Pump is designed for fast and easy infusions while maintaining precise, continuous, constant and pulse free flow rates from 0.01µl/min to 50mL/min. For your convenience the most common syringes are preprogrammed but any two syringes within clamping range, or one syringe (push) and the Univentor Withdrawal Adaptor (pull), can be operated simultaneously.

A built-in computer enables the unit to be self-calibrating and takes care of all the calculations required to control flow rates and delivered volumes for different sizes and types of syringes. The control panel is self-explanatory with a short operating instruction and is foremost designed to, in every way, be user friendly. While operating, the settings remain visible and the delivered volume is continuously displayed. The last settings are memorized and stored as default values.



Art. No:	Description:
8301501	U-802 Syringe Pump

U-864

– The only pump you need in your lab

The Univentor 864 Syringe Pump is a high precision instrument designed for microdialysis, microinjections and infusions, 0,001µl-5ml/min. The U-864 syringe pump offers a wide range of possibilities and comes with a unique computer controlled pulse-free DC motor that ranges from 3–3000 rpm providing an extremely high precision flow rate.

The most common syringes are pre-programmed but any syringe within clamping range may be used. There are three interchangeable syringe holders available so that either 4 syringes up to 50mL, 6 syringes up to 10mL or 8 syringes up to 2.5mL can be used simultaneously. Fitted with syringe holders for a total of 4 syringes the Univentor Withdrawal Adaptor can be used to enable withdrawals as well as simultaneous infusions and withdrawals.

The built-in computer makes the U-864 self-calibrating and takes care of all the calculations needed to keep control of flow rates and delivered volumes for different sizes and types of syringes.

The control panel is self-explanatory and user friendly with a short operating instruction.

During operations the settings remain visible and the delivered volume is continuously displayed. The last settings are stored as default values.



Art. No:	Description:
8301001	U-864 Syringe Pump, up to 4 syringes
8301002	U-864 Syringe Pump, up to 6 syringes
8301003	U-864 Syringe Pump, up to 8 syringes

PERISTALTIC PUMPS

The 120 cased pumps offer flexible solutions for a variety of applications. Exceptional accuracy, combined with a digital display and intuitive user interface, ensure that these pumps are precise and simple to use.

The biopharm process requires accurate and repeatable pumping which is easy to validate. With an exceptional 2,000:1 speed range and a selection of USP Class VI tubes, the 120 delivers the flexibility and purity so vital to drug trials. A keypad lock secures your pumping parameters for constant and repeatable performance.

- The 114DV pumphead offers trouble-free tube loading in seconds, for high accuracy and repeatable flow and long tube life.
- Flow rates 0.02 to 170 ml/min at 2 bar (30psi)
- Flip-top, single channel pumphead ensures trouble free tube loading in seconds
- Speed range 1 to 200 rpm in 1 rpm intervals at ±1% accuracy
- Quick reversible direction
- Auto start and Max (Prime)
- Keypad lock to protect set-up

Variable speed peristaltic pump, offering manual control via an intuitive interface and digital display. Please ask us about the different pumpsheads available for multiple channels.



Art. No:	Description:
010.6131.DA0	120S/DV Pump 200 rpm



IMPLANTABLE PUMPS

These implantable infusion pumps use a patented, microprocessor controlled peristalsis mechanism for accurate controlled flow. It is the only implantable and programmable pump for rodents. iPRECIO® can infuse fluids continuously at accurate flow rate via software programming and it can be refilled in vivo via a percutaneously accessible port.



IMPLANTABLE

The pump can be completely implanted in small laboratory animals subcutaneously. Thus, the animal moves freely without any restraint (i.e. tethering) during drug infusion. Additionally, infection risk is reduced, and the animal is likely to be significantly less stressed than in a tethered infusion model.



REFILLABLE

The pump can be refilled via percutaneous access to the pump refill septum and reservoir after implantation of the pump. So, long-term drug infusion can continue until the installed battery life has run out. The reservoir is elastic and configured in such geometry as to allow gentle palpation to confirm an approximate level of fluid in the reservoir.



PRECISION

The technology driving the infusion is a patented "Rotary Finger" method. This method is a unique form of peristalsis. The precise "micro-stick" pushes a rubber tube in the pump in a uniform and sequential manner. The accuracy of iPRECIO is better than $\pm 5\%$. Every pump is factory tested with individual calibration.



PROGRAMMABLE

Using the easy to use menu driven iPRECIO software, header information along with infusion protocol details are entered and ultimately downloaded to the pump's flash memory. Start Time, End Time, Flow-rate (see specification below), Constant and/or Variable infusion mode are programmable. A recovery period may also be programmed using the Keep Vein Open Function (KVO) where saline is initially filled in the reservoir.



WIRELESS

SMP-300 Micro Infusion Pump allows in-vivo re-programming for maximum flexibility. If no effect is detected, pump may be re-programmed to infuse at a higher flow rate. A higher concentration drug/TA may also be used. Communications Availability (Comms Avail) of SMP-300 may be programmed to maximize battery life or maximum responsiveness. Options are provided in both KVO setting and Group Profile (Infusion Protocol) setting.





MOUSE & LARGER

Art. No:	Description:
SMP-300	iPRECIO Micro Infusion Pump, pkg of 5
IMS-300	SMP-300 Management System



RATS & LARGER

Art. No:	Description:
SMP-200	iPRECIO Micro Infusion Pump, pkg of 5
IMS-200	SMP-200 Management System

	SMP-300	SMP-200
Size:	24,8 x 15,0 x 7,2 mm	38,7 x 19,2 x 9,7 mm
Pump Volume:	2,15 cc	7,20 cc
Animal Species:	Mouse or larger	Rats or larger
Animal Size:	Recommended 25g /Min, 20 g	Recommended 230 g /Min, 160 g
Reservoir Volume:	130 µL	900 µL
Flow Rate (Resolution):	0,0–10,0 µL/hr (0,1L/hr)	0,0, 0,2, 0,5 & 1,0–30,0 µL/hr (0,1µL/hr)
Programmable:	 Preprogrammed prior to implantation Reprogrammable in-vivo after implantation	 Preprogrammed prior to implantation
Battery Life:	With wireless antenna OFF 0,1 µL/hr – 47 days 10,0 µL/hr – 9 days With antenna ON every minute 0,1 µL/hr – 16 days 10 µL/hr – 7 days	1,0 µL/hr – 6 months 8,5 µL/hr – 1 month 19,0 µL/hr – 1,8 weeks 30,0 µL/hr – 1 week
Type of Usage:	Disposable	Disposable

NEUROSCIENCE

Neuroscience is the scientific study of the brain and central nervous system. The brain is the most complex organ in the body and research on brain functions are extremely diverse, from early development in stem cells to behavioral impact. This large scientific field often requires special type of instruments with very high precision where the Stereotaxic Frame is the principal equipment. Kopf stereotaxic instrumentation was originally designed by David Kopf in the early 1960's. Quality, versatility and ability to perform are guaranteed by David Kopf Instruments and several atlases in current use are based on the dependable parameters of Kopf instrumentation.



STEREOTAXIC EQUIPMENT	162
MICRODIALYSIS	166
INJECTION SYSTEMS	171
DRILLS & BURRS	172
SYRINGES	173
MATRICES	174

STEREOTAXIC EQUIPMENT

As an authorized distributor AgnTho's represent David Kopf Instruments and their full Stereotaxic Line. Kopf Small Animal Stereotaxic Instrument originally designed by David Kopf Instruments in 1963, is a versatile, easy-to-use instrument that facilitates proper alignment of small animals for the stereotaxic placement of electrodes, micropipettes, cannula and other devices. David Kopf manufactures an extensive product line including a variety of stereotaxic manipulators ranging from 0,5–100 micron resolution, digital, calibrated dial, vernier scale or motorized along with a range of adapters and ear bars, all which can be custom made if needed.

Quality, versatility and ability to perform are guaranteed by David Kopf Instruments and several atlases in current use are based on the dependable parameters of Kopf instrumentation. The precise manner in which the instrument is built and assembled assures the integrity and durability so the researcher will be able to make accurate and repeatable placements. Precise alignment of the slides assures smooth movements resulting in correct use of the atlases.

Below is a selection of the most common Stereotaxic Equipment.
We can supply the full range available at www.kopfstruments.com

KOPF SMALL ANIMAL STEREOTAXIC FRAMES

These instruments consist of a rugged "U" frame assembly to which is affixed a specified Kopf three dimensional manipulator.

Manipulator X,Y, Z adjustment – Metric scale 80 mm travel, 100 & 10 micron manual and 10 micron digital display, single or dual options available.

Angle adjustment – Fully universal joint calibrated on two planes for access from any angle. Vertical alignment pin can be removed for angled settings from 0°–90° either side of vertical, 2° increments. New design includes a precision t-bolt locking mechanism to insure angles are held firm and rigid in place to provide positive angle presentations.

Rotation adjustment – Manipulator swivel base can be rotated up to 360°. Manipulator X/Z axis can be repositioned at 90° increments. The stereotaxic frame is mounted to a 17"L x 10"W base plate and is elevated to bring ear bar height to 53 mm. Ear bar slots on the "U" frame have 0.1 mm verniers for ease in centering an animal. Standard accessories that are not required can be omitted.



Any standard accessories that are not required can be omitted and the appropriate accessories added.



BRAIN ATLAS

available on page 134

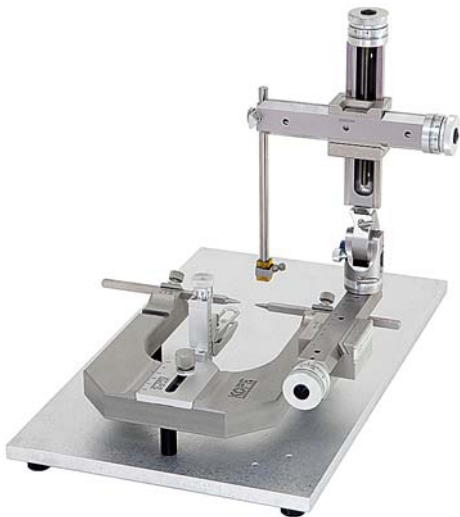


100 MICRON RESOLUTION

Model 900 Single/902 Dual Small Animal Frame Stereotaxic "U" Assembly. Standard mouse setup for gas anaesthesia includes:

- Model 960 Electrode Manipulator (0.1 mm res.) (x2 for Model 902)
- Model 1770 Electrode Holder with corner clamp (x2 for Model 902)
- Model 923-B Mouse Gas Anaesthesia Head Holder
- Model 922 Mouse Non-rupture Ear Bars
- Model 900-C Base Plate (17"L x 10"W)

Art. No:	Description:
900	Small Animal Stereotaxic Instr.
902	Dual Small Animal Stereotaxic Instr.



10 MICRON RESOLUTION

Model 963 Single/962 Dual Ultra Precise Small Animal Frame Stereotaxic "U" Assembly. Standard mouse setup for gas anaesthesia includes:

- Model 961 Micro Manipulator (0,01 mm res.) (x2 for Model 962)
- Model 1770 Electrode Holder with corner clamp (x2 for Model 962)
- Model 923-B Mouse Gas Anaesthesia Head Holder
- Model 922 Mouse Non-rupture Ear Bars
- Model 900-C Base Plate (17"Lx10"W)

Art. No:	Description:
963	Ultra Precise Small Animal Stereotaxic Instr.
962	Dual Ultra Precise Small Animal Stereotaxic Instr.



10 MICRON RESOLUTION DIGITAL

Model 940 Single/942 Dual Small Animal Frame Stereotaxic "U" Assembly. Standard mouse setup for gas anaesthesia includes:

- Model 960 Electrode Manipulator (0,01 mm digital res.) (x2 for Model 942)
- Model 1770 Electrode Holder with corner clamp (x2 for Model 942)
- Model 923-B Mouse Gas Anaesthesia Head Holder
- Model 922 Mouse Non-rupture Ear Bars
- Model 900-C Base Plate (17"L x 10"W)

Art. No:	Description:
940	Small animal stereotaxic instr. with digital display readout
942	Dual Small Animal Stereotaxic instr. with digital display

ADAPTERS & EARBARS

Kopf offer a variety of adapter for many different animals as well as custom made. These are the most common one we sell.

MODEL 920 RAT ADAPTOR

The traditional rat adaptor includes a nose and tooth bar assembly offering various stereotaxic adjustments. Can be used with Model 906 Anaesthesia mask when using gas (see page 151).

Art. No:	Description:
920	Rat Adaptor



MODEL 973-B NEONATAL RAT GAS ANAESTHESIA HEAD HOLDER

Offers maximum stereotaxic adjustment available for positioning the head, allowing versatility to angle the head without obstructing the ability to deliver gas anaesthesia. Custom designed palate bar insures head stability.

Four gas masks are included for various age ranges.

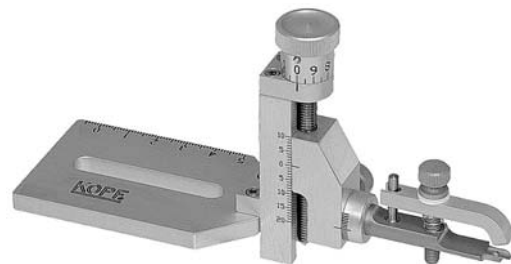
Art. No:	Description:
973-B	Neonatal Rat Gas Anesthesia Holder



MODEL 926-B MOUSE ADAPTOR

The traditional mouse adaptor includes a nose and tooth (palate) bar assembly. Can be used with Model 907 Anaesthesia mask when using gas (see page 151).

Art. No:	Description:
926-B	Mouse Adaptor



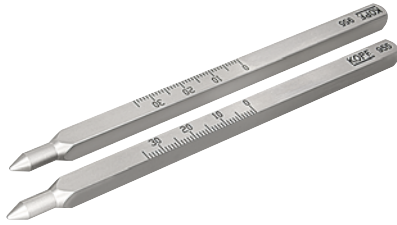
MODEL 923-B MOUSE GAS ANAESTHESIA HEAD HOLDER

Offers maximum stereotaxic adjustment for positioning the head, allowing versatility to angle the head without obstructing the ability to deliver gas anaesthesia. Very popular model.

Art. No:	Description:
✓ 923-B	Mouse Gas Anesthesia head holder



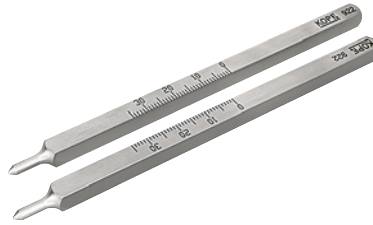
✓ Most popular



MODEL 955

45° Non-rupture ear bars. Our most common ear bars for rat with 35mm of calibration and 6,3 mm square.

Art. No:	Description:
955	Rat Non-rupture ear bars



MODEL 922

60° Non-rupture ear bars. Our most common ear bars for mice with 35mm of calibration and 6,3 mm square.

Art. No:	Description:
922	Mouse Non-rupture ear bars



MODEL 921

Zygoma Ear cups, serrated and soft tissue cups for mice and neonatal rats, 35 mm of calibration and 6,3 mm square.

Art. No:	Description:
921	Zygoma Ear Cups

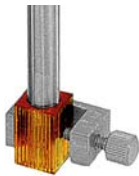
STEREOTAXIC HOLDERS



1770

With Corner Clamp holds electrodes from 0.4 mm to 1.3 mm Ø.

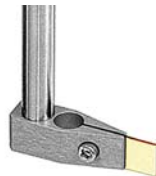
Art. No:
1770



1773

With Removable Open Side Clamp holds electrodes from 0,4 mm to 3,6 mm Ø.

Art. No:
1773



1774

Wedge Holder with Removable Flag. Tapered profile for positioning electrodes close together.

Art. No:
1774



1766-AP

Holds Alzet and Plastic One cannula up to 3,5 mm Ø pedestal.

Art. No:
1766-AP



1772

Universal holder. Clamp devices from 2,8 mm to 11 mm Ø.

Art. No:
1772



1772-F

Includes needle support foot designed to hold Hamilton syringes.

Art. No:
1772-F



1776-P1

Holds Alzet and Plastic One cannula up to 3,5 mm Ø pedestal. Bilateral placement.

Art. No:
1776-P1



1779

Cannula holds a variety of guide cannulas from CMA Microdialysis.

Art. No:
1779



MICRODIALYSIS

In short, the Microdialysis probe works as an artificial blood vessel. The Microdialysis probe has an inlet and outlet tube running through a semipermeable membrane at the tip, where the perfusion solution passes through. Diffusion then takes place in the tip, located in the extracellular fluid, and the outlet side of the probe then carries the neurotransmitters or other substances back for analysis.



“Microdialysis is an in vivo bioanalytical technique for near real-time monitoring of chemical events taking place in the extracellular fluid.”

AT Series Shaft Length Membrane Length Membrane Material

AT4.15.2.PES

On the opposite side you can find the standard types of CNS and Peripheral probes. The article number is built up of the probe specification according to the image above.

- 1 Choose the Series of probes you need. Usually by the Dalton required, and also shaft length
- 2 Choose the shaft length
- 3 Choose available membrane length
- 4 Choose membrane type

Example. You need a CNS probe with 6kDa, 15mm shaft and 2mm PES membrane. By following the above process and using the diagram on the opposite side the correct article number would then be: AT4.15.2.PES

CNS PROBES

AT Series:	Dalton:	Shaft length mm:	Membrane length mm:	Membrane O.D. mm:	PES:	CU:	PE:
AT10	6kDa	8	1, 2	0,2	x	x	
AT4	6kDa	15	1, 2, 3, 4	0,2	x	x	
AT9	6kDa	14 & 20	1, 2, 3, 4	0,6	x		
AT6	15kDa	14 & 20	1, 2, 3, 4	0,6	x		
AT2	35kDa	14 & 20	1, 2, 3, 4	0,6	x		
AT13	100kDa	8	1, 2	0,2	x		
AT14	100kDa	15	1, 2, 3, 4	0,2	x		
AT12	3MDa	8	1, 2	0,3			x
AT5	3MDa	15	1, 2, 3, 4	0,3			x

Pkg of 3

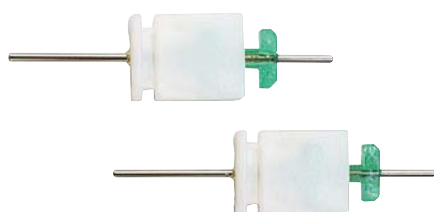
PERIPHERAL PROBES

AT Series:	Dalton:	Shaft length mm:	Membrane length mm:	Membrane O.D. mm:	PES:	CU:
AT1	6kDa	2	4	0,2	x	x
AT11	6kDa	8 & 80	10	0,6	x	
AT11	6kDa	35	4	0,6	x	
AT7	15kDa	8 & 80	10	0,6	x	
AT7	15kDa	35	4	0,6	x	
AT3	35kDa	8 & 80	10	0,6	x	
AT3	35kDa	35	4	0,6	x	

Pkg of 3

DISPOSABLE GUIDE CANNULAS

The guide cannula part is non-metal while the dummy shaft is made from passivated stainless steel; ensuring that the guides will be stiff during insertion. Disposable guide cannulas are available for all AT Series probes, and are typically used in awake animal settings. Since these guides cannot be reused they are disposed after the test. We also supply reusable guide cannula made from KEL-F and Stainless Steel.



Art. No:	For Probe AT Series:
AT2.14.iC	2
AT2.20.iC	2
AT4.15.iC	4 & 14
AT5.15.iC	5
AT6.14.iC	6
AT6.20.iC	6
AT9.14.iC	9
AT9.20.iC	9
AT10.8.iC	10 & 13
AT12.8.iC	12

Pkg of 10

DENTAL CEMENT & ANCHOR SCREWS

The cement adhere to bone though anchor screws are still recommended for reinforcement and security. Never exceeds 30°C. Hardens rapidly.



The Stainless Steel Anchor Screws are used to reinforce the dental cement when fixating a Guide Cannula to the bone. The screws are 2mm long with a thread of 1 mm O.D. The predrilled hole should be made with a 0,9 mm Ø burr (Art. No: HM71009, page 173). The tip of the screw is flat to minimize any damage.



Art. No:	Description:
7508	Dental Cement, powder 20g
7509	Dental Cement, liquid 45 ml
✓ MCS1x2	Anchor Screws, 1x2 mm, pkg of 100
MCS1x3	Anchor Screws, 1x3 mm, pkg of 100

✓ = Most popular

METAL GUIDE CAP

The Metal Guide Cap is made from aluminium and serves as a Guide Cannula protector. This enables multiple animals to be kept together and minimizing interference with the Guide Cannula installation.

Art. No:	Description:
4001060	Metal guide Cap, pkg of 3



SAMPLE VIALS

Sample vials are used for collecting samples with or without resealing caps. Our plastic vials are available in 3 different materials. The standard volume of the vials is 300 µl. They can be sealed like glass vials by septa.

Art. No:	Description:
1029	Plastic vials Polystyrene
1030	Caps re-sealing Santopren
1048	Plastic vials Polypropylene
EWS-27-07	Plastic vial Polyethylene

Pkg of 1000

IN VITRO STAND

The In Vitro Stand serves as a place for In Vitro tests of probes and also a place to store and rinse probes in a safe way. A Stainless Steel Rod, for connecting the probe clip to a stereotaxic micromanipulator arm can also be used.

Art. No:	Description:
8001000	In Vitro Stand with probe clip
1005001	Probe Clip
8001001	Stainless Steel Rod
1770-C	Upper Bracket Clamp



COUNTER BALANCE ARM & COLLARS

The Counter Balance Arm is made of lightweight aluminium with a clamp for fixation to the cage. The arm can be adjusted/balanced with weights so it easily follows the animal's movement, avoiding twisting or other harm to the tubing.

The Plastic Collar is used as a harness to connect the animal to the Counter Balance Arm. It is fitted around the animal and connects to the steel wire for free movement in the cage.

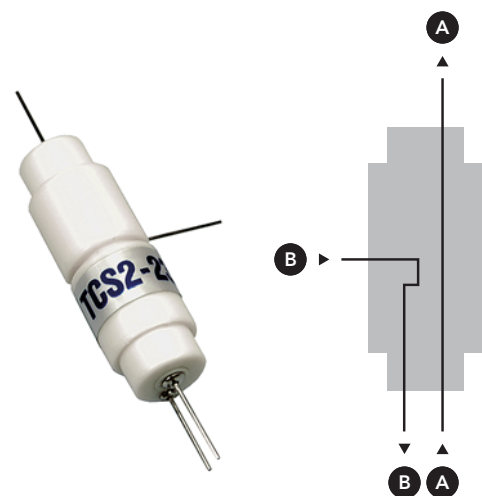
Art. No:	Description:
AT3010	Counter Balance Arm
4001021	Plastic Collar, pkg of 100

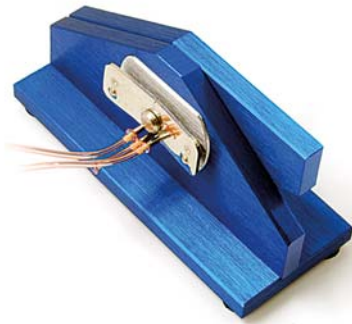
SWIVELS

The TCS Swivel series are a durable high quality swivel with low internal volume. This is a two channel liquid swivel designed specifically for microdialysis. The lumen of the swivel is constructed from biologically inert (TFE) pipe with I.D. 29G. The dead volume of the swivels channels (A & B in the illustration) are 1,5 µl and 4,5 µl.

Art. No:	Description:
TCS2-23/3	Dual Channel Microdialysis Swivel

Pkg of 3





LIQUID SWITCH

This liquid switch is designed for two syringes and has a ceramic inside making it totally inert and guarantees a long lifetime. Peek tubing is supported by stainless steel cannulas. The outlet cannula volume is 0,72µl/channel with no dead volume.

Art. No:	Description:
8401405	Liquid Switch

FRACTION COLLECTOR

The Univentor 820 Microsampler is a fraction collector designed to collect liquid samples as small as 1µl and to keep them cold (+8°C). It can collect 20 samples from one probe (single mode) or 2x10 samples from two probes (dual mode) at the same time. Either tubing or stainless steel cannulas supplied with the U-820 can be used as collection cannulas. Septas may be attached when using steel cannulas.

Art. No:	Description:
8303002	U-820 Microsampler, 20 vials of 300ul



40 or 64 vial models available



MICRODIALYSIS PERISTALTIC PUMP

The MAB 20 Microdialysis Pumps is a peristaltic pump specified for low flow rates. Two different pump tubings allow for flow rates between 0,1–10,0 µl/min or 3–30 µl/min. The MAB 20 pump is available with 2 channels. An additional application for this pump is to use it with higher cut-off probes. Our pre-calibrated tubing kits for further accuracy is recommended.

Art. No:	Description:
MAB20	Microdialysis Pump, two channels



TUBING

See page 128



PUMPS

See page 154

INJECTION SYSTEMS

The CX System is a very affordable and easy to use high quality injection system. The system consists of a 31G Injection cannula, Guide cannula and Dummy cannula and can be used for CNS injections in both anesthetized and awake animals. Custom made sizes are available.



CXG - GUIDE CANNULA

Easy to see the hole of the guide cannula for probe insertion. Head piece is 8 (h) x 6 (w) x 2.5 (d) mm.

- Stainless Steel and Polyurethane
- Shaft length standard 4 & 8 mm
- Shaft I.D. 0,40 mm O.D. 0,50 mm



CXD - DUMMY CANNULA

Prevents CSF from flowing into the guide cannula during animal recovery. Easy to see the hole of the guide cannula for probe insertion. String eases removal by researcher but animal cannot remove it.

- Stainless Steel and Polyurethane
- Shaft length standard 4 & 8 mm
- Shaft 0,40 mm O.D.



CXMI - INJECTION CANNULA

Use your standard stereotaxic electrode holder for placement. Just clamp the extended needle and set the CXMI in place.

- Stainless steel and Polyurethane
- Shaft length standard 5 & 9 mm
- Shaft 31 Gauge
- Tip blunt end



Injection Cannula inserted in Guide Cannula

Art. No:	Description:
CXG-4	Guide cannula, 4 mm
CXG-8	Guide cannula, 8 mm
CXD-4	Dummy guide cannula, 4 mm
CXD-8	Dummy guide cannula, 8 mm
CXMI-5	Microinjection Cannula 31G, 5 mm
CXMI-9	Microinjection Cannula 31G, 9 mm

Pkg of 3

i CUSTOM SIZES AVAILABLE

DRILLS & BURRS

HIGH SPEED DRILL

Model 1474 High Speed Stereotaxic Drill is designed for placing holes in the skull at precise stereotaxic coordinates for electrodes, cannulas or micro injections. Model 1474 can be run at a variable speed with dial or foot pedal control. The foot pedal control speed range is from 0 - 45,000 rpm. Both the micro motor control and foot pedal control have forward and reverse operation. Steady constant speed can be achieved with proper flip of the switch from foot to manual control.

Additional design features include a quick change rotary chuck handpiece with DC motor housed within. This handpiece is distinguished from flexible shaft machines by higher speed performance and added flexibility. The handpiece is vibration-free, quiet running and lightweight.

The drill can be supplied with or without Model 1464 stereotaxic handpiece holder.

1474 with 1464 Stereotaxic Holder



Art. No:	Description:
1474	Stereotaxic High Speed Drill incl. 1464 holder
1474w/o1464	Stereotaxic High Speed Drill without 1464 holder



Art. No:	Description:
67-1200	Cordless drill, rechargeable

CORDLESS DRILL

This micro drill is designed for research applications that require surgical burrs and trephines. It is a lightweight, cordless, very affordable and easy to use compact drill suitable for the biomedical field.

This drill is constructed of lightweight aluminium alloy for balance and control and is powered by a rechargeable 6-volt nickel cadmium battery. Under normal operating conditions the unit will function for 8 hours between recharging. The battery should last for up to 1000 charges/discharges cycles. The drill is equipped with an easy chuck, allowing the burrs to be attached by only pushing to install, and pulling to remove. No additional tools are necessary. It comes in a hard plastic case with die-cut foam for convenient storage.

Specification:

- Length (Without Burr): 17,5cm
- Diameter: 1,9cm
- Power: 6-Volts DC
- Speed: 12.000 rpm

STAINLESS STEEL BURRS

These burrs are manufactured from Stainless Steel in one piece. They are of high quality with precision tothing, high elasticity and optimal hardness.



Art. No:	Ø mm:
HM71005	0,5
HM71007	0,7
HM71009	0,9
HM71014	1,4
HM71021	2,1

2,3 mm Ø shaft, 44 mm overall length, Pkg of 5

STAINLESS STEEL TREPHINES

These Stainless Steel Trephines drills have a special construction to guarantee a safe and speedy working process. All Trephines burrs have an opening for clearing of the excess material.



Art. No:	Ø mm:
224RF018	1,8
224RF023	2,3
224RF027	2,7
227RF050	5,0

2,3 mm Ø shaft, 44 mm overall length, Pkg of 2

DIAMOND BURRS

These burrs consist of a hardened Stainless Steel profile coated with selected diamond grains, using modern electro technology. This ensures an extremely homogenous, safe and long lasting diamond coating.



Art. No:	Ø mm:
H001009	0,9
H001014	1,4
H001021	2,1

2,3 mm Ø shaft, 44 mm overall length, Pkg of 1

SYRINGES

Our Syringes are made by ILS in Germany in the very heart-land where technical glass products have been made for centuries. We can offer hundreds of precision syringes in different sizes and models to fit your application; from permanent to removable needles, Luer-Lock, Gastight etc. Below is a selection of the most commonly sold syringes.

MICROSYRINGE

Ultraprecise microsyringes with removable interchangeable needles, commonly used for CNS microinjections. Other tip models and O.D. available.



Art. No:	Ø mm:
2110301	5 µl
2110401	10 µl
2110501	25 µl
2110601	50 µl
2110701	100 µl

Blunt Needle: 20 mm

MICRODIALYSIS SYRINGE

A high precision gastight syringe, fitted with a blunt needle suitable for e.g. tubing adapters. The plungers are fitted with a replaceable leak tight PTFE seal.



Art. No:	Ø mm:
2610007	1,0 ml
2610027	2,5 ml
2610047	5,0 ml

Blunt Needle: 20 mm

LUER - LOCK SYRINGE

High quality Syringe with Luer Lock with PTFE (Teflon) leak-tight seal plunger which can be replaced.



Art. No:	Ø mm:
2607011	1,0 ml
2607031	2,5 ml
2607051	5,0 ml
2607071	10,0 ml

MATRICES

These high grade acrylic and stainless steel matrices are precisely machined to ensure reproducible even sections of tissue from rat or mouse. The brain matrices allow the researcher to slice either coronal (perpendicular to center line) or sagittal (parallel to center line) sections through the brain, heart, tumor and spinal cord at 1 mm or 0,5 mm intervals.

All coronal brain matrices have an additional mid-line sagittal cut to aid in the separation of the left and right hemispheres. The mouse brain matrices can also be used on neonatal rat brains.

USING THE MATRICES

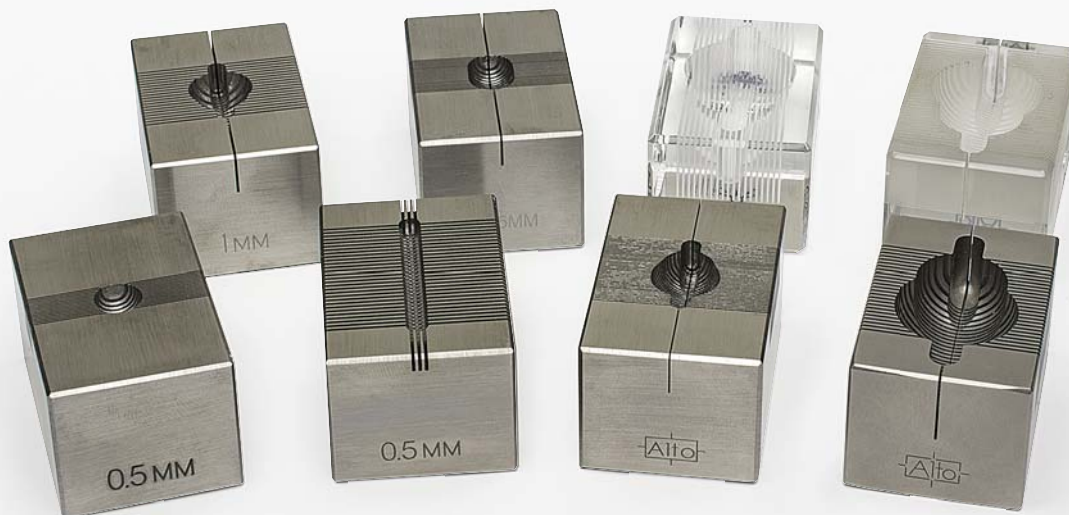
When making a cut it is easiest to insert the blade at an angle, not straight down. Insert the blade in one side of the matrix at about a 45 degree angle then cut with it.

Make the first cut with a blade and leave it in the Brain Matrix. Then take a second blade and make an adjacent cut. Leave this second blade in the Matrix as well.

Now you can remove the first blade and cut with it again. Continuing in this "leap frog" method allows for more control over your cuts and limits brain movement while slicing. When using this method, the previously cut slice will stick to the "leaping" blade as you pull it out to make your next cut. This should be removed before making the next cut.

You may also choose to use more than two blades leaving multiple blades in. Some may find it beneficial to place a blade at either end of the desired section, and then make their cuts between the two end blades. Making a cut halfway between the blades, then cutting each half in half, etc. is a very stable way of doing it.

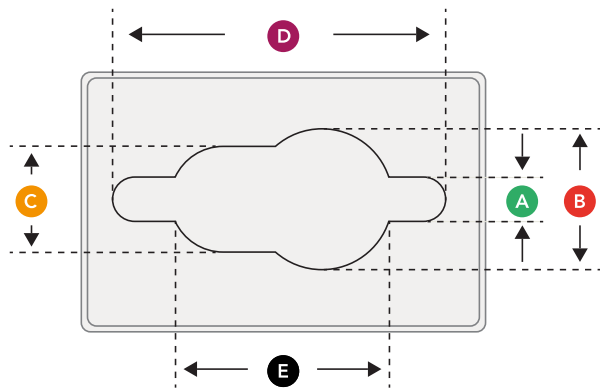
Then to remove a slice, pull out the two blades on either side of it. After one slice is removed you only need to pull up one blade at a time to get each additional slice as it should stick to the blade.



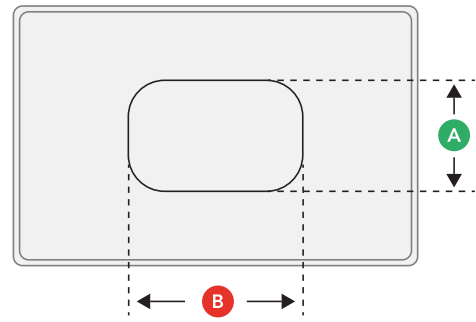
PUNCHES

available on
page 83

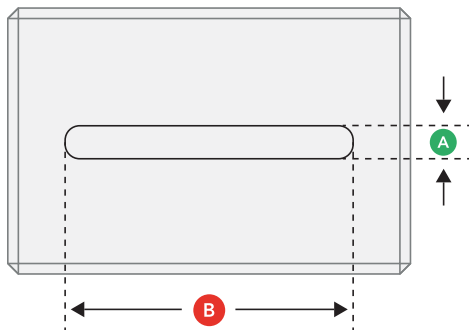
BRAIN MATRICES



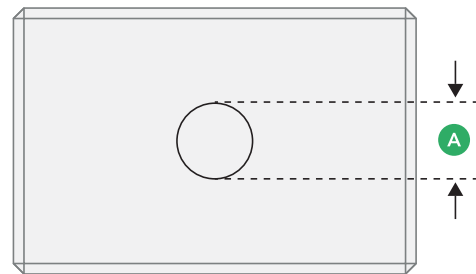
HEART MATRICES



SPINAL CORD MATRICES



TUMOR MATRICES



0,5 mm Steel Art. No:	1,0 mm Steel Art. No:	1,0 mm Acrylic Art. No:	Size:	A	B	C	D	E	Cavity Depth mm:
				(Measurements in mm)					
69-2165-1	69-2175-1	68-1175-1	Mouse coronal 40–75 g	3,18	11,1	8,73	19,1	12,2	7,40
69-2265-1	69-2275-1	68-1275-1	Mouse sagittal 40–75 g	3,18	11,1	8,73	19,1	12,2	7,40
69-2120-1	69-2130-1	68-1130-1	Rat coronal 175–300 g	4,76	15,9	12,7	36,6	23,8	7,61
69-2220-1	69-2230-1	68-1230-1	Rat sagittal 175–300 g	4,76	15,9	12,7	36,6	23,8	7,61
69-2150-1	69-2160-1	68-1160-1	Rat coronal 300–600 g	4,76	19,8	14,7	36,6	24,7	10,91
69-2250-1	69-2260-1	68-1260-1	Rat sagittal 300–600 g	4,76	19,8	14,7	36,6	24,7	10,91
69-4120	65-2100	65-1100	Heart matrice for rat	12,7	19,9				9,70
69-4140			Heart matrice for mouse	8,30	12,7				4,80
69-4160			Small Tumor	8					4,80
69-4150			Large Tumor	12					4,80
69-4180			Mouse Spinal Cord	4	50				5,00
69-4190			Rat Spinal Cord	4	96				5,00

68-1150 Matrice Blades for 1,0 mm slot, 7,62 x 1,9 mm blades. Pkg of 25

68-1151 Matrice Blades for 0,5 mm slot, 120 x 20 mm blades. Pkg of 20

INDEX

0000289.....	109	02-050-011.....	76	03-022-200.....	6	03-041-145K.....	33
0000290.....	109	02-050-012.....	76	03-024-105.....	6	03-041-150.....	7
0000292.....	109	02-050-015.....	76	03-024-115.....	6	03-041-170.....	7
0000294.....	109	02-050-020.....	76	03-024-130.....	6	03-041-170K.....	33
0000296.....	109	02-050-021.....	76	03-024-145.....	6	03-041-230.....	7
0000298.....	109	02-050-022.....	76	03-024-155.....	6	03-044-150.....	7
0000323.....	109	02-050-025.....	76	03-024-165.....	6	03-044-170.....	7
0000325.....	109	0208-5/45-PS.....	41	03-024-175.....	6	03-044-190.....	7
0000327.....	109	0208-55-PS.....	40	03-024-185.....	6	03-045-150.....	7
0004317.....	109	0208-5-K.....	40	03-024-200.....	6	03-045-170.....	7
0004760.....	110	0208-5-PS.....	39	03-025-105.....	6	03-045-190.....	7
0007223.....	109	0208-5SPSF-PO.....	39	03-025-115.....	6	0304-5-PO.....	39
0007720.....	110	0208-7-K.....	40	03-025-130.....	6	03-070-145.....	8
0007740.....	110	0208-7-PS.....	42	03-025-145.....	6	03-070-145K.....	33
0007743.....	110	0209-55-PS.....	40	03-025-155.....	6	03-071-145.....	8
0007770.....	110	0209-5-PS.....	39	03-025-165.....	6	03-071-145K.....	33
0007771.....	110	02-322-001.....	78	03-025-175.....	6	03-080-145.....	8
0008663.....	110	02-322-002.....	78	03-025-185.....	6	03-081-145.....	8
0008670.....	110	02-322-003.....	78	03-025-200.....	6	03-320-090.....	9
0008851.....	110	02-329-110.....	78	03-027-105.....	6	03-320-105.....	9
0009922.....	109	02-358-120.....	78	03-027-115.....	6	03-320-115.....	9
00571-13.....	57	02-380-120.....	78	03-027-130.....	6	03-320-120.....	9
00574-11.....	57	02-463-110.....	78	03-027-145.....	6	03-321-090.....	9
010.6131.DA0.....	158	02-465-130.....	78	03-027-155.....	6	03-321-105.....	9
0103-5-PS.....	39	02-532-001.....	79	03-027-165.....	6	03-321-115.....	9
0108-5-PS.....	39	02-532-002.....	79	03-027-175.....	6	03-321-120.....	9
02-030-030.....	74	02-532-003.....	79	03-027-185.....	6	03-325-115.....	9
02-030-031.....	74	03-020-105.....	6	03-027-200.....	6	03-330-115.....	10
02-030-070.....	74	03-020-115.....	6	03-029-105.....	6	03-331-115.....	10
02-030-071.....	74	03-020-130.....	6	03-029-115.....	6	03-332-090.....	10
02-036-040.....	74	03-020-145.....	6	03-029-130.....	6	03-332-115.....	10
02-036-041.....	74	03-020-155.....	6	03-029-145.....	6	03-333-115.....	10
0203-7-PS.....	42	03-020-165.....	6	03-029-155.....	6	03-336-115.....	8
02-040-010.....	75	03-020-175.....	6	03-029-165.....	6	03-337-115.....	8
02-040-011.....	75	03-020-185.....	6	03-029-175.....	6	03-373-100SB.....	36
02-040-012.....	75	03-020-200.....	6	03-029-185.....	6	03-412-130.....	34
02-040-015.....	75	03-022-105.....	6	03-029-200.....	6	03-417-130.....	34
02-040-020.....	75	03-022-115.....	6	03-040-145.....	7	03-449-125.....	34
02-040-021.....	75	03-022-130.....	6	03-040-145K.....	33	03-720-090.....	34
02-040-022.....	75	03-022-145.....	6	03-040-150.....	7	03-720-130.....	34
02-040-023.....	75	03-022-155.....	6	03-040-170.....	7	03-741-120.....	35
02-040-024.....	75	03-022-165.....	6	03-040-170K.....	33	03-744-105.....	35
02-040-025.....	75	03-022-175.....	6	03-040-230.....	7	03-745-105.....	35
02-050-010.....	76	03-022-185.....	6	03-041-145.....	7	03-748-105.....	35

03-749-105	35	08-020-300.....	45	08-221-250.....	47	08-360-014	56
03-880-090.....	36	08-023-105	45	08-221-300	47	08-360-018	56
03-881-090	36	08-023-115.....	45	08-222-105.....	47	08-360-027	56
04-120-145	28	08-023-130.....	45	08-222-115	47	08-420-100	49
04-122-145	28	08-023-145.....	45	08-222-130.....	47	08-421-100.....	49
04-124-145	28	08-023-160.....	45	08-222-145.....	47	08-423-100	49
04-125-145	29	08-023-180	45	08-222-160.....	47	08-425-100	49
04-127-145.....	29	08-023-200.....	45	08-222-180.....	47	08-427-100.....	49
04-129-145	29	08-023-250	45	08-222-200	47	08-429-100.....	49
04-220-140.....	29	08-023-300.....	45	08-222-250	47	08-438-100	52
04-220-170.....	29	08-030-105	45	08-222-300	47	08-439-100	52
04-225-140.....	29	08-030-115.....	45	08-223-130.....	47	08-440-100	52
04-225-170.....	29	08-030-130	45	08-223-145.....	47	08-450-080.....	52
04-250-150.....	30	08-030-145	45	08-223-160.....	47	08-450-090.....	52
04-250-170.....	30	08-030-160	45	08-223-200	47	08-450-105	52
04-251-150	30	08-030-180	45	08-223-250	47	08-450-115.....	52
04-251-170	30	08-030-200.....	45	08-223-300	47	08-450-130	52
04-320-145.....	28	08-030-250.....	45	08-224-130.....	47	08-450-145.....	52
04-325-145.....	28	08-030-300.....	45	08-224-145.....	47	08-451-080	52
04-520-115	27	08-032-130.....	45	08-224-160.....	47	08-451-090	52
04-521-115	27	08-032-145.....	45	08-224-180.....	47	08-451-105.....	52
04-721-120	30	08-033-130.....	45	08-224-250	47	08-451-115	52
05-036-090.....	14	08-033-145.....	45	08-231-130	47	08-451-130	52
05-037-090	14	08-040-130	45	08-231-145	47	08-451-145	52
05-118-085.....	11	08-040-145	45	08-241-130	47	08-452-080.....	52
05-119-085	11	08-050-120	46	08-241-145	47	08-452-090.....	52
05-142-120.....	15	08-050-130	46	08-247-130	47	08-452-105.....	52
05-143-120	15	08-050-145	46	08-247-145	47	08-452-115	52
05-149-110.....	16	08-056-120	46	08-251-120	48	08-452-130.....	52
05-151-110.....	16	08-056-130	46	08-251-130	48	08-452-145.....	52
05-161-100.....	16	08-056-145	46	08-251-145	48	08-453-080.....	52
05-163-100.....	16	08-060-120	46	08-261-120	48	08-453-090.....	52
05-220-085.....	11	08-060-120LW.....	46	08-261-120LW.....	48	08-453-105	52
05-223-085.....	11	08-060-121.....	46	08-261-150	48	08-453-115.....	52
05-225-085	11	08-060-150	46	08-262-120	48	08-453-130.....	52
05-227-085	11	08-062-120.....	46	08-262-120LW.....	48	08-453-145.....	52
05-230-085	12	08-062-120LW	46	08-262-150	48	08-510-005	49
05-231-085	12	08-062-150.....	46	08-263-120.....	48	08-510-010.....	49
05-233-085	12	08-068-115.....	46	08-267-120	48	08-512-005.....	49
05-235-085.....	12	08-068-130	46	08-267-120LW.....	48	08-512-120	49
06-54-313.....	57	08-068-150	46	08-267-150	48	08-512-130	49
08-020-105	45	08-150-230.....	56	08-276-150.....	48	08-513-005	49
08-020-115.....	45	08-221-105.....	47	08-276-200	48	08-513-010.....	49
08-020-130	45	08-221-115	47	08-278-130.....	48	08-515-003	49
08-020-145.....	45	08-221-130	47	08-278-150.....	48	08-515-005	49
08-020-160	45	08-221-145.....	47	08-278-200	48	08-515-120	49
08-020-180	45	08-221-160.....	47	08-350-150.....	55	08-515-130	49
08-020-200.....	45	08-221-180.....	47	08-350-200	55	08-517-005.....	49
08-020-250.....	45	08-221-200	47	08-350-250	55	08-517-010	49

08-519-003.....	49	10035-20.....	79	11-060-120.....	46	13-079-140.....	59
08-519-005.....	49	1005001.....	169	11200-00.....	126	13-082-160.....	59
08-519-120.....	49	1005-1.....	118	11200-10.....	44	13-083-160.....	59
08-519-130.....	49	1005S1.....	118	11200-12.....	44	13-090-140.....	59
08-520-005.....	49	10089-11.....	82	11200-14.....	44	13-091-140.....	59
08-520-010.....	49	10093-13.....	82	11200-33.....	43	13-200-130.....	60
08-522-005.....	49	10099-15.....	82	11203-23.....	43	13-200-140.....	60
08-523-005.....	49	10108-5-SM.....	39	11215-02.....	44	13-200-160.....	60
08-523-010.....	49	10140-01.....	86	11223-20.....	44	13-200-180.....	60
08-525-005.....	49	10162-12.....	80	11231-20.....	41	13-200-200.....	60
08-527-005.....	49	10165-11.....	86	11231-30.....	41	13-200-220.....	60
08-527-010.....	49	101-8001.....	18	11241-30.....	43	13-200-240.....	60
08-529-005.....	49	101-8003.....	18	11242-40.....	43	13-200-260.....	60
08-530-105.....	50	101-8010-1.....	18	11251-10.....	39	13-200-300.....	60
08-531-105.....	50	101-8015-1.....	18	11251-35.....	41	13-201-130.....	60
08-533-105.....	50	101-8081-15.....	20	11252-30.....	39	13-201-140.....	60
08-534-105.....	50	101-8083-15.....	20	11252-40.....	39	13-201-160.....	60
08-535-105.....	50	101-8161.....	19	11253-21.....	40	13-201-180.....	60
08-537-105.....	50	101-8163.....	19	11253-29.....	41	13-201-200.....	60
08-554-070.....	53	101-8163-C.....	21	11-261-120.....	48	13-201-220.....	60
08-564-085.....	51	101-8166-1.....	19	11262-30.....	44	13-201-240.....	60
08-566-085.....	51	101-8167-1.....	19	11267-30.....	42	13-201-260.....	60
08-568-085.....	51	101-8173-15.....	20	11270-20.....	42	13-201-300.....	60
08-570-085.....	51	101-8175-15-C.....	21	11271-30.....	42	13-320-035.....	66
08-575-070.....	53	101-8584.....	23, 103	11280-11.....	57	13-320-050.....	66
08-720-100.....	106	10208-5-SM.....	39	11370-40.....	53	13-320-060.....	66
08-790-090.....	54	1029.....	168	11370-42.....	53	13-321-035.....	66
08-792-090.....	54	102-9020.....	23	11399-80.....	53	13-321-050.....	66
08-794-090.....	54	102-9460.....	23	11399-87.....	53	13-321-060.....	66
08-796-090.....	54	1030.....	168	117-A110-15.....	21	13-410-004.....	66
08-910-120.....	97	10316-14.....	78	117-C120-15.....	22	13-410-006.....	66
08-920-125.....	97	1036.....	114	119-29187-50.....	83	13-410-008.....	66
08-922-125.....	97	1037.....	114	12029-12.....	97	13-410-010.....	66
08-924-125.....	97	10370-18.....	81	121001.....	125	13-414-140.....	66
08-934-140.....	106	1038.....	114	121002.....	125	13-450-008.....	67
08-951-100.....	55	104-15590-121.....	22	121003.....	125	13-450-012.....	67
08-953-090.....	55	104-15590-121.....	94	13-020-100.....	58	13-451-008.....	67
08-960-001.....	54	1043.....	114	13-021-100.....	58	13-451-012.....	67
08-960-004.....	54	1044.....	114	13-028-100.....	58	14072-10.....	34
08-960-005.....	54	1048.....	168	13-028-120.....	58	14080-11.....	36
08-960-007.....	54	1080.....	77	13-029-100.....	58	14081-09.....	36
10002-50.....	75	10-841-160.....	55	13-029-120.....	58	14086-09.....	36
1002.....	129	10-843-160.....	55	13-030-100.....	58	14106-09.....	10
1003.....	129	10-853-130.....	55	13-030-120.....	58	14568-09.....	27
10030-13.....	86	10-855-130.....	55	13-031-100.....	58	14569-09.....	27
10035-00.....	79	10-993-010.....	131	13-031-120.....	58	14699.....	104
10035-05.....	79	10-997-100.....	132	13-072-140.....	59	1469SB.....	104, 146
10035-10.....	79	11036-20.....	56	13-073-140.....	59	14719.....	104
10035-15.....	79	11036-90.....	56	13-078-140.....	59	14739.....	104

1474.....	172	17-730-120.....	97	199-60030.....	124	22-121-115.....	105
1474w/ø1464.....	172	1774.....	165	201-1000.....	96	22-121-116.....	105
14757.....	104	1776-P1.....	110, 165	20-116-125.....	92	22-125-010.....	105
14777.....	104	1779.....	165	20-120-130.....	92	22-125-020.....	105
14797.....	104	17-780-115.....	71	20-160-150.....	92	22-125-030.....	105
14837.....	104	17-780-130.....	71	202-1000.....	96	22-125-040.....	105
14857.....	104	17-780-150.....	71	20-220-140.....	93	22-125-050.....	105
14958-09.....	32	18000-10.....	57	20-220-160.....	93	22-125-060.....	105
14958-11.....	32	18010-00.....	145	20-220-180.....	93	22-125-070.....	105
14959-09.....	32	18010-01.....	145	20-220-200.....	93	22-125-080.....	105
14959-11.....	32	18010-02.....	145	203-1000.....	96	22-125-090.....	105
15000-00.....	13	18035-01.....	83	20325-00.....	127, 143	22-125-110.....	105
15000-03.....	12	18035-02.....	83	20-380-120.....	93	22-125-111.....	105
150000340.....	118	18035-03.....	83	20-380-140.....	93	22-125-112.....	105
15000-04.....	12	18035-05.....	83	20-380-160.....	93	22-125-113.....	105
150000447.....	118	18035-35.....	83	20-380-180.....	93	22-125-114.....	105
150000500.....	118	18035-50.....	83	20-392-140.....	94	22-125-115.....	105
15000-08.....	12	18035-80.....	83	20-392-160.....	94	22-125-116.....	105
150000800.....	118	18052-01.....	67	20-392-180.....	94	22-134-010.....	105
15000-10.....	13	18052-02.....	67	20-392-200.....	94	22-134-020.....	105
15001-08.....	12	18320-11.....	67	204-1000.....	96	22-134-030.....	105
15003-08.....	13	19-112-120.....	88	20-420-140.....	95	22-134-040.....	105
15004-08.....	13	19-120-130.....	88	20-420-170.....	95	22-134-050.....	105
150-1000.....	125	19-138-150.....	89	20-420-200.....	95	22-134-060.....	105
150-1005.....	125	19-170-140.....	88	20-470-140.....	95	22-165-002.....	105
15370-50.....	13	19-170-160.....	88	20-470-170.....	95	22-165-003.....	105
15370-52.....	13	19-170-180.....	88	205-1000.....	96	22-165-010.....	105
15396-00.....	13	19-170-200.....	88	20-680-140.....	95	22-165-020.....	105
15396-01.....	13	19-280-115.....	89	20-681-140.....	95	22-165-030.....	105
157001.....	125	19-280-140.....	89	20-690-140.....	95	22-175-003.....	106
157003.....	125	19-280-180.....	89	2110301.....	173	22-175-010.....	106
157005.....	125	19-292-160.....	90	2110401.....	173	22-175-020.....	106
157016.....	125	19-292-180.....	90	2110501.....	173	22-175-030.....	106
157601.....	125	19-292-200.....	90	2110601.....	173	22-175-040.....	106
157602.....	125	19-300-140.....	90	2110701.....	173	22-175-050.....	106
16220-14.....	70	19-300-170.....	90	22-121-010.....	105	22-175-060.....	106
16221-14.....	70	19-300-200.....	90	22-121-020.....	105	22-175-070.....	106
162452.....	142	19-326-170.....	89	22-121-030.....	105	22-175-080.....	106
16246.....	142	19-520-135.....	89	22-121-040.....	105	22-179-003.....	106
1696H.....	103	19-820-140.....	91	22-121-050.....	105	22-179-010.....	106
17-251-080.....	60	19-821-140.....	91	22-121-060.....	105	22-179-020.....	106
17-251-110.....	60	19-824-140.....	91	22-121-070.....	105	22-179-030.....	106
17-251-130.....	60	19-825-140.....	91	22-121-080.....	105	22-179-040.....	106
1766-AP.....	110, 165	19-840-090.....	91	22-121-090.....	105	22-179-050.....	106
1770.....	165	19-841-090.....	91	22-121-110.....	105	22-179-060.....	106
1770-C.....	169	19-850-090.....	91	22-121-111.....	105	22-179-070.....	106
1772.....	165	19-851-090.....	91	22-121-112.....	105	22-179-080.....	106
1772-F.....	165	199-60010.....	124	22-121-113.....	105	224RF018.....	173
1773.....	165	199-60020.....	124	22-121-114.....	105	224RF023.....	173

224RF027	173	26001-45.....	84	307-337-110.....	24	4001060.....	168
22-620-007	97	26001-50.....	84	307-356-110K.....	32	411-244-110.....	8
22-620-011.....	97	26001-55.....	84	307-357-110K.....	32	411-244-110K.....	33
22-620-012.....	97	26001-60.....	84	307-358-110.....	25	411-245-110.....	8
22-620-014.....	97	26001-65.....	84	307-359-110.....	25	411-245-110K.....	33
227RF050.....	173	26001-70.....	84	308-176-170.....	8	411-614-080.....	9
24-031-002.....	64	26002-10.....	85	308-177-170.....	8	411-615-080.....	9
24-031-003.....	64	26002-15.....	85	309-102-110.....	15	411-932-110.....	28
24-031-004.....	64	26002-20.....	85	309-103-110.....	15	411-933-110.....	28
24-033-002.....	64	26007-01.....	85	309-222-120.....	14	4202.....	115
24-033-003.....	64	26007-02.....	85	309-222-150.....	14	4204.....	115
24-033-004.....	64	26007-03.....	85	309-223-120.....	14	4206.....	115
2436050.....	152	26007-04.....	85	309-223-150.....	14	42-020-030.....	63
24-421-150.....	80	26007-05.....	85	31100.....	139	42-020-040.....	63
24-425-001.....	80	26016-12.....	85	31120.....	139	42-038-060.....	64
24-425-002.....	80	2607011.....	173	31170.....	139	42-038-090.....	64
24-461-130.....	80	2607031.....	173	312-471-140.....	60	42-056-080.....	64
24-461-180.....	80	2607051.....	173	31-321-140.....	70	42-058-080.....	64
24-463-130.....	80	2607071.....	173	31-329-140.....	71	42-087-080.....	64
24-463-180.....	80	2610007.....	173	31-329-170.....	71	42-370-005.....	81
24-523-155.....	78	2610027.....	173	31-346-140.....	70	42-370-010.....	81
250-1000.....	124	2610047.....	173	31-347-140.....	70	42-370-015.....	81
25-020-070.....	62	28015-25.....	143	31-377-150.....	71	42-370-018.....	81
25-020-100.....	62	28020-28.....	142	31-720-140.....	73	42-370-020.....	81
25-024-070.....	62	28030-20.....	142	31-720-170.....	73	42-370-025.....	81
25-024-100.....	62	2808G.....	103	31-720-190.....	73	42-370-035.....	81
25-028-100.....	63	2809G.....	103	31-720-220.....	73	42-370-040.....	81
250-3000.....	124	2814G.....	103	31-725-170.....	73	42-370-045.....	81
250-4000.....	124	29008-01.....	126	31-727-150.....	73	42-850-020.....	131
25-040-100.....	62	29008-12.....	126	31-730-150.....	72	42-886-200.....	145
25-042-100.....	62	29008-22.....	126	31-731-150.....	72	42-886-460.....	145
25-050-105.....	62	29055-00.....	127	31-820-185.....	72	42-920-090.....	77
25-052-105.....	62	29060-00.....	127	31-821-185.....	72	42-922-130.....	77
25-060-130.....	62	29080-00.....	127	3216.....	146	42-924-130.....	77
25-062-130.....	62	30087-20.....	132	326-127-130.....	106	42-940-010.....	77
26000-25.....	84	302-336-300.....	131	3308-5-PS.....	39	5200.....	115
26000-30.....	84	307-106-140.....	26	33-120-115.....	86	5202.....	115
26000-35.....	84	307-107-140.....	26	342-133-020.....	63	5204.....	115
26000-40.....	84	307-156-140.....	26	342-133-030.....	63	5206.....	115
26000-45.....	84	307-156-170.....	26	39-200-002.....	83	54-120-190.....	35
26000-50.....	84	307-157-140.....	26	39-200-003.....	83	54-120-230.....	35
26000-55.....	84	307-157-170.....	26	39-200-004.....	83	55-7020.....	136
26000-60.....	84	307-276-110.....	25	39-200-005.....	83	55-7021.....	136
26000-65.....	84	307-276-150.....	25	39-200-006.....	83	55-7022.....	136
26000-70.....	84	307-277-110.....	25	39-200-007.....	83	55-7023.....	136
26001-25.....	84	307-277-150.....	25	39-200-008.....	83	55-7024.....	136
26001-30.....	84	307-336-090.....	24	39DP.....	137	59016.....	145
26001-35.....	84	307-336-110.....	24	4001001.....	129	59026.....	96
26001-40.....	84	307-337-090.....	24	4001021.....	169	59027.....	96

59043.....	96	786G.....	102	9005050-D.....	151	ACD-014.....	65, 144
640H.....	102	7900.....	114	900.....	163	ACD-015.....	65, 144
64-562.....	67	7901.....	114	902.....	163	AHVM12.....	104, 146
65-1100.....	175	7902.....	114	906.....	151	AT10.8.iC.....	167
65-2100.....	175	7904.....	114	907.....	151	AT1010.....	133
6661H.....	101	7905.....	114	920.....	164	AT1020.....	133
6663H.....	101	7906.....	114	921.....	165	AT1030.....	133
67-1200.....	172	7907.....	114	922.....	165	AT1040.....	133
68-1130-1.....	175	7909.....	114	923-B.....	164	AT1080.....	134
68-1150.....	175	7912.....	114	926-B.....	164	AT1100.....	134
68-1151.....	175	7913.....	114	940.....	163	AT1110.....	134
68-1160-1.....	175	7914.....	114	942.....	163	AT12.8.iC.....	167
68-1175-1.....	175	7915.....	114	955.....	165	AT2.14.iC.....	167
68-1230-1.....	175	7916.....	114	962.....	163	AT2.20.iC.....	167
68-1260-1.....	175	7920.....	114	963.....	163	AT3010.....	169
68-1275-1.....	175	7923.....	114	973-B.....	164	AT3020.....	143
681H.....	102	7924.....	114	98 071.....	68	AT4.15.iC.....	167
682H.....	102	8001000.....	169	98 072.....	68	AT5.15.IC.....	167
684H.....	102	8001001.....	169	98 196.....	68	AT6.14.iC.....	167
688H.....	102	80-759-20.....	132	98 197.....	68	AT6.20.iC.....	167
69-2120-1.....	175	8301001.....	158	98 198.....	68	AT7000.....	116
69-2130-1.....	175	8301002.....	158	98 244.....	68	AT7020.....	116
69-2150-1.....	175	8301003.....	158	98 245.....	68	AT7075.....	116
69-2160-1.....	175	8301300.....	157	98 246.....	68	AT9.14.iC.....	167
69-2165-1.....	175	8301501.....	157	98 396.....	68	AT9.20.iC.....	167
69-2175-1.....	175	8303002.....	170	98 397.....	68	ATAM10-B.....	119
69-2220-1.....	175	8323101.....	148	98 398.....	68	ATAM10-G.....	119
69-2230-1.....	175	8323102.....	148	98 399.....	68	ATAM10-R.....	119
69-2250-1.....	175	8329001.....	150	98 400.....	68	ATAM10-Y.....	119
69-2260-1.....	175	8329002.....	150	98 401.....	68	ATAM15-B.....	119
69-2265-1.....	175	8336000.....	149	98 402.....	68	ATAM15-G.....	119
69-2275-1.....	175	8336050.....	149	98 403.....	68	ATAM15-R.....	119
69-4120.....	175	8338001.....	150	98 404.....	68	ATAM15-Y.....	119
69-4140.....	175	8401405.....	170	98 405.....	68	ATS-3.....	119
69-4150.....	175	8433005.....	152	98 406.....	68	BAT-12.....	138
69-4160.....	175	8433020.....	150	98 407.....	68	CXD-4.....	171
69-4180.....	175	8433020.....	152	98 408.....	68	CXD-8.....	171
69-4190.....	175	8438025.....	150	98 409.....	68	CXG-4.....	171
6942H.....	101	85-111-002.....	82	98 410.....	68	CXG-8.....	171
697H.....	103	85-420-000.....	82	98 411.....	68	CXMI-5.....	171
719H.....	102	85-430-001.....	82	98 412.....	68	CXMI-9.....	171
7204.....	115	8522H.....	102	98 413.....	68	EH7144H.....	103
7206.....	115	8684H.....	102	98 414.....	68	EH7149G.....	102
7208.....	115	8832H.....	102	98 415.....	68	EH7151H.....	102
736H.....	102	8889H.....	102	98 416.....	68	EH7177H.....	103
7508.....	168	8942H.....	102	98 417.....	68	EH7345H.....	102
7509.....	168	9001001.....	151	98 418.....	68	EH7435G.....	102
768G.....	102	9001001-D.....	151	98 419.....	68	EH7464G.....	102
7751001.....	152	9005050.....	151	ABJ 320-4NM.....	130	EH7476H.....	102

EH7790H.....	103	K890H	102	PE 60	128	V392ZG	100
EH7792H.....	103	K891H	102	PE 90	128	V393G	100
EH7794H.....	103	KL300-LED-2.....	142	PE 160	128	V393H	100
EH7823H.....	103	KN-391.....	83	PE 190	128	V397H	100
EH7824H.....	103	LE5014	121	PE 200.....	128	V421H.....	100
EH7975H.....	102	LE5016	121	RapID-200	117	V422H.....	100
EHEIM-100.....	152	LE5018	121	RapID-App.....	117	V493H.....	100
EW 220-3NM.....	130	LE5019	121	RapID-CR1400	117	W527	102
EWS-27-07	168	LE5020	121	RapID-Practice20	117	W810T.....	146
FEP 1004.....	129	LE5022	121	RapID-Rem.....	117	W811	102
FEP 1005.....	129	LE5024	121	RapID-SK.....	117	V925H	100
FEP 1006.....	129	LE5025	121	RET-2	139	V926H	100
G-1	122	Legato 100	154	RET-2-ISO	136	W9575.....	100
G-2	122	Legato 101.....	154	RET-3	139	VCP392ZH	100
G-3	122	Legato 110.....	154	RET-3-ISO.....	136	VCP393H	100
G-4	122	Legato 111	154	RET-4	136	VCP397H.....	100
G-5	122	Legato 130.....	155	RET-4	139	VCP493H.....	100
GR-3MM	84	Legato 180.....	155	RTV-170.....	122	Y292H	101
GR-4MM	84	Legato 185.....	155	RTV-180.....	122	Y416H	101
GR-5.5MM	84	Legato 200	156	SIL 025.....	128	Y416H	101
GR-5MM	84	Legato 210.....	156	SIL 037.....	128	Y443H	101
GR-7MM	84	Legato 210P	156	SIL 047.....	128	Z315H.....	101
GT410.....	120	MAB20.....	170	SIL 065	128	Z463H	101
GT420.....	120	MCS1x2	168	SIL 080	128	Z925H	101
GT606	120	MCS1x3.....	168	SMP-200	160		
GT608	120	MLS 50-3D.....	130	SMP-300	160		
H001009	173	MPE1698H	103	TCAT-2LV	136		
H001014.....	173	MRE 010.....	128	TCS2-23/3.....	169		
H001021.....	173	MRE 025.....	128	TV-150.....	122		
HD-010	140	MRE 033.....	128	TV-150-RED	122		
HD-010-C.....	140	MRE 037.....	128	TW2	138		
HD-020	140	MRE 040	128	TV-Small	122		
HM71005	173	MRE 040-S-20	128	V1028H	100		
HM71007	173	MRE 050	128	V1204G	100		
HM71009	173	MRE 080	128	W1620T.....	103		
HM71014.....	173	MT-23.....	139	W1856T.....	103		
HM71021.....	173	MT-26.....	139	W2775.....	102		
HP 062.....	137	MT-29.....	139	W2777	102		
HP-1M	136, 137	MTC-1	137	W2812	103		
HP-4M.....	136, 137	N266H.....	102	W2870.....	103		
IMS-200	160	NEO-9.....	119	W2881	103		
IMS-300	160	OZO-552.....	141	V292ZH	100		
IT-14	139	OZP-555.....	141	V304H	100		
IT-18	139	PCB 2000-1.....	130	W3326.....	101		
IT-21	139	PE 8	128	V384H	100		
IT-23	139	PE 10	128	V385H	100		
K803H	102	PE 20	128	V387H	100		
K881H.....	102	PE 31	128	V391H.....	100		
K889H	102	PE 50	128	V392H	100		

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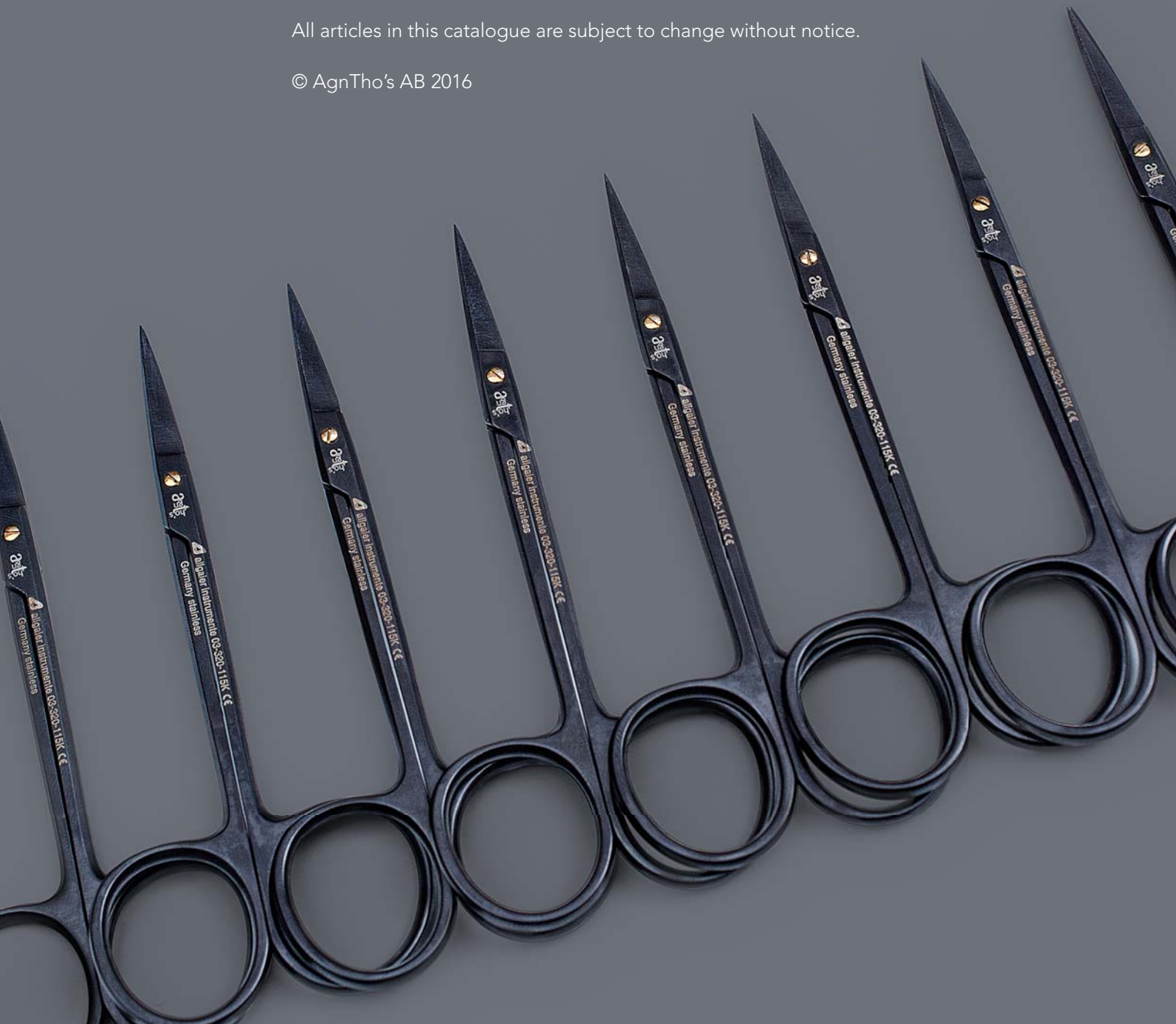
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