



.....**NEURO SURGERY**

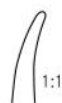


Micro needle holders



	0.3 mm x 0.4 mm	0.3 mm x 0.4 mm
180 mm - 7"	DP-786-16-01	DP-786-16-02

Titanium, with ratchet



	0.8 mm x 0.8 mm	0.8 mm x 0.8 mm
185 mm - 7 1/4"	DP-786-16-03	DP-786-16-04

Titanium, with ratchet

Micro needle holders


1:1



1:1



1:1



1:1

	0.5 mm x 0.8 mm	0.5 mm x 0.8 mm
200 mm - 8"	DP-786-16-05	DP-786-16-06

Titanium, with ratchet


1:1



1:1



1:1



1:1

	0.4 x 0.6 mm	0.4 x 0.6 mm	0.6 x 0.6 mm	0.6 x 0.6 mm
200 mm - 8"	DP-786-16-07	DP-786-16-08	DP-786-16-09	DP-786-16-10

Titanium, with ratchet

Micro needle holders



225 mm - 8 3/4"	DP-786-16-11	DP-786-16-12
stainless steel		

225 mm - 8 3/4"	DP-786-16-13	DP-786-16-14
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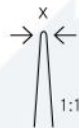
225 mm - 8 3/4"	DP-786-16-15	DP-786-16-16
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without ratchet

225 mm - 8 3/4"	DP-786-16-17	DP-786-16-18
stainless steel		

225 mm - 8 3/4"	DP-786-16-19	DP-786-16-20
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with ratchet

Micro needle holders, 90° twisted


	x = 0.4 mm	x = 0.4 mm	x = 0.9 mm	x = 0.9 mm
200 mm - 8"	DP-786-16-21	DP-786-16-24	DP-786-16-27	DP-786-16-30
225 mm - 8¾"	DP-786-16-22	DP-786-16-25	DP-786-16-28	DP-786-16-31
240 mm - 9½"	DP-786-16-23	DP-786-16-26	DP-786-16-29	DP-786-16-32
<i>without ratchet</i>	<i>straight</i>	<i>curved</i>	<i>straight</i>	<i>curved</i>

	x = 0.4 mm	x = 0.4 mm	x = 0.9 mm	x = 0.9 mm
200 mm - 8"	DP-786-16-33	DP-786-16-36	DP-786-16-39	DP-786-16-42
225 mm - 8¾"	DP-786-16-34	DP-786-16-37	DP-786-16-40	DP-786-16-43
240 mm - 9½"	DP-786-16-35	DP-786-16-38	DP-786-16-41	DP-786-16-44
<i>without ratchet, diamond coated</i>	<i>straight</i>	<i>curved</i>	<i>straight</i>	<i>curved</i>



These needle holders are also available with ratchet.

Micro needle holders

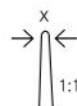
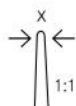
JACOBSON

	 1:1	 1:1	 1:1	 1:1
180 mm - 7"	DP-786-16-45	DP-786-16-46	DP-786-16-46A	DP-786-16-47
<i>without ratchet</i>	<i>straight</i>	<i>curved</i>	<i>straight, diamond coated</i>	<i>curved, diamond coated</i>

180 mm - 7"	DP-786-16-48	DP-786-16-49	DP-786-16-50	DP-786-16-51
<i>with ratchet</i>	<i>straight</i>	<i>curved</i>	<i>straight, diamond coated</i>	<i>curved, diamond coated</i>



These needle holders are also available with ratchet.

Micro needle holders


9 mm Ø	x = 1.0 mm	x = 1.0 mm	x = 1.0 mm	x = 1.0 mm
230 mm - 9 "	DP-786-16-52	DP-786-16-53	DP-786-16-54	DP-786-16-55
<i>without ratchet</i>	<i>straight</i>	<i>curved</i>	<i>straight, diamond coated</i>	<i>curved, diamond coated</i>

9 mm Ø	x = 1.0 mm	x = 1.0 mm	x = 1.0 mm	x = 1.0 mm
230 mm - 9 "	DP-786-16-56	DP-786-16-57	DP-786-16-58	DP-786-16-59
<i>with ratchet</i>	<i>straight</i>	<i>curved</i>	<i>straight, diamond coated</i>	<i>curved, diamond coated</i>



9 mm Ø				
230 mm - 9 "	DP-786-16-60	DP-786-16-61	DP-786-16-62	DP-786-16-63
<i>without ratchet</i>	<i>straight, smooth</i>	<i>curved, smooth</i>	<i>straight, serrated</i>	<i>curved, serrated</i>

9 mm Ø				
230 mm - 9 "	DP-786-16-64	DP-786-16-65	DP-786-16-66	DP-786-16-67
<i>with ratchet</i>	<i>straight, smooth</i>	<i>curved, smooth</i>	<i>straight, serrated</i>	<i>curved, serrated</i>

Laminectomy punches



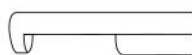
FERRIS- SMITH-KERRISON

	x = 150mm - 6"	x = 180 mm - 7"	x = 200 mm - 8"	x = 230 mm - 9"
1 mm	DP-786-16-68	DP-786-16-74	DP-786-16-80	DP-786-16-86
2 mm	DP-786-16-69	DP-786-16-75	DP-786-16-81	DP-786-16-87
3 mm	DP-786-16-70	DP-786-16-76	DP-786-16-82	DP-786-16-88
4 mm	DP-786-16-71	DP-786-16-77	DP-786-16-83	DP-786-16-89
5 mm	DP-786-16-72	DP-786-16-78	DP-786-16-84	DP-786-16-90
6 mm	DP-786-16-73	DP-786-16-79	DP-786-16-85	DP-786-16-91
1 mm	DP-786-16-92	DP-786-16-98	DP-786-16-104	DP-786-16-110
2 mm	DP-786-16-93	DP-786-16-99	DP-786-16-105	DP-786-16-111
3 mm	DP-786-16-94	DP-786-16-100	DP-786-16-106	DP-786-16-112
4 mm	DP-786-16-95	DP-786-16-101	DP-786-16-107	DP-786-16-113
5 mm	DP-786-16-96	DP-786-16-102	DP-786-16-108	DP-786-16-114
6 mm	DP-786-16-97	DP-786-16-103	DP-786-16-109	DP-786-16-115
1 mm	DP-786-16-116	DP-786-16-122	DP-786-16-128	DP-786-16-134
2 mm	DP-786-16-117	DP-786-16-123	DP-786-16-129	DP-786-16-135
3 mm	DP-786-16-118	DP-786-16-124	DP-786-16-130	DP-786-16-136
4 mm	DP-786-16-119	DP-786-16-125	DP-786-16-131	DP-786-16-137
5 mm	DP-786-16-120	DP-786-16-126	DP-786-16-132	DP-786-16-138
6 mm	DP-786-16-121	DP-786-16-127	DP-786-16-133	DP-786-16-139
1 mm	DP-786-16-140	DP-786-16-142	DP-786-16-148	
2 mm	DP-786-16-141	DP-786-16-143	DP-786-16-149	DP-786-16-154
3 mm		DP-786-16-144	DP-786-16-150	DP-786-16-155
4 mm		DP-786-16-145	DP-786-16-151	DP-786-16-156
5 mm		DP-786-16-146	DP-786-16-152	DP-786-16-157
6 mm		DP-786-16-147	DP-786-16-153	DP-786-16-158

Thin footplate

Dismantable laminectomy punches

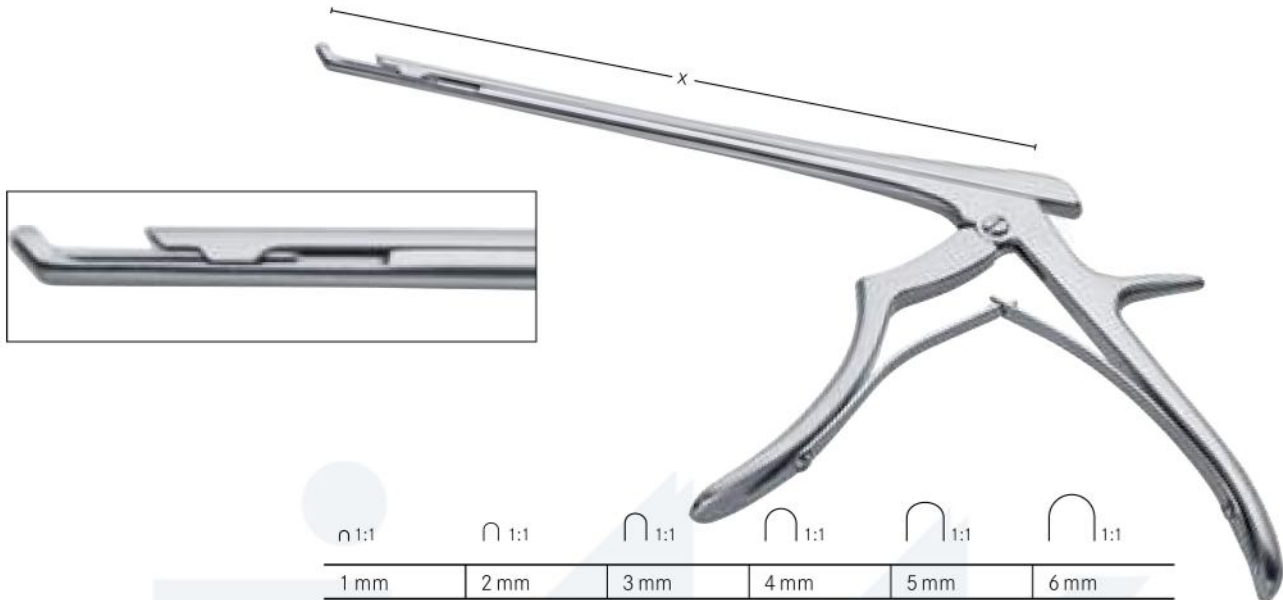

 1:1	 1:1	 1:1	 1:1	 1:1	 1:1
1 mm	2 mm	3 mm	4 mm	5 mm	6 mm

FERRIS- SMITH-KERRISON


	x = 180 mm - 7"	x = 200 mm - 8"	x = 230 mm - 9"
1 mm	DP-786-16-159	DP-786-16-165	DP-786-16-171
2 mm	DP-786-16-160	DP-786-16-166	DP-786-16-172
3 mm	DP-786-16-161	DP-786-16-167	DP-786-16-173
4 mm	DP-786-16-162	DP-786-16-168	DP-786-16-174
5 mm	DP-786-16-163	DP-786-16-169	DP-786-16-175
6 mm	DP-786-16-164	DP-786-16-170	DP-786-16-176
1 mm	DP-786-16-177	DP-786-16-183	DP-786-16-189
2 mm	DP-786-16-178	DP-786-16-184	DP-786-16-190
3 mm	DP-786-16-179	DP-786-16-185	DP-786-16-191
4 mm	DP-786-16-180	DP-786-16-186	DP-786-16-192
5 mm	DP-786-16-181	DP-786-16-187	DP-786-16-193
6 mm	DP-786-16-182	DP-786-16-188	DP-786-16-194
1 mm	DP-786-16-195	DP-786-16-201	DP-786-16-207
2 mm	DP-786-16-196	DP-786-16-202	DP-786-16-208
3 mm	DP-786-16-197	DP-786-16-203	DP-786-16-209
4 mm	DP-786-16-198	DP-786-16-204	DP-786-16-210
5 mm	DP-786-16-199	DP-786-16-205	DP-786-16-211
6 mm	DP-786-16-200	DP-786-16-206	DP-786-16-212
1 mm	DP-786-16-213	DP-786-16-219	DP-786-16-225
2 mm	DP-786-16-214	DP-786-16-220	DP-786-16-226
3 mm	DP-786-16-215	DP-786-16-221	DP-786-16-227
4 mm	DP-786-16-216	DP-786-16-222	DP-786-16-228
5 mm	DP-786-16-217	DP-786-16-223	DP-786-16-229
6 mm	DP-786-16-218	DP-786-16-224	DP-786-16-230

Thin footplate

Laminectomy punches



FERRIS- SMITH-KERRISON

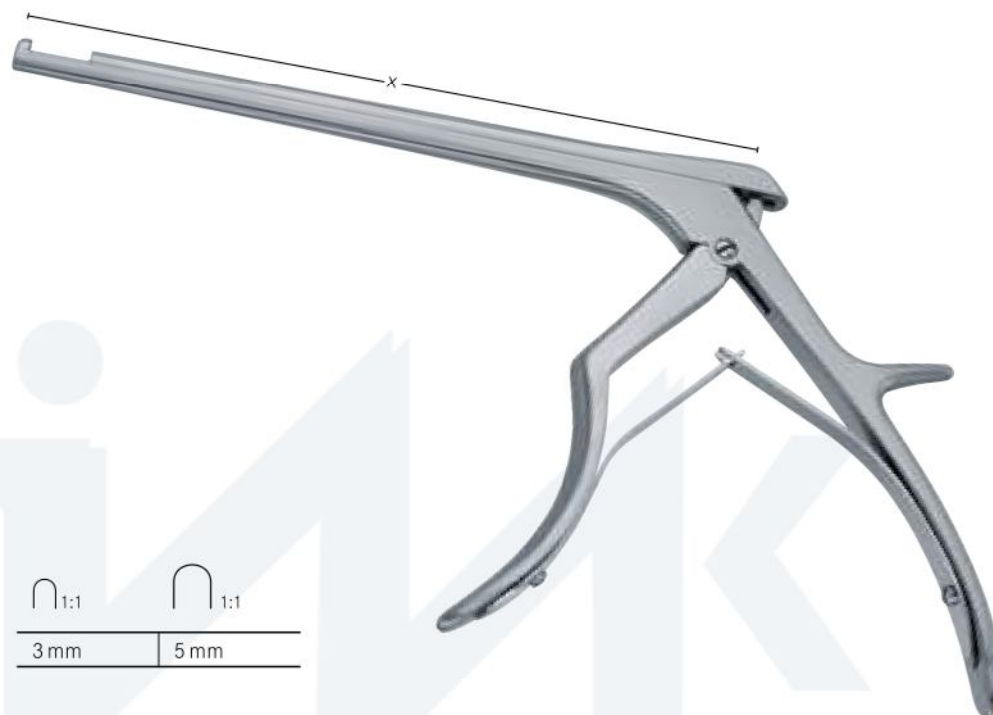
	x = 150mm - 6"	x = 180 mm - 7"	x = 200 mm - 8"	x = 230 mm - 9"
1 mm	DP-786-16-231	DP-786-16-239	DP-786-16-245	DP-786-16-251
2 mm	DP-786-16-232	DP-786-16-240	DP-786-16-246	DP-786-16-252
3 mm	DP-786-16-233	DP-786-16-241	DP-786-16-247	DP-786-16-253
4 mm	DP-786-16-236	DP-786-16-242	DP-786-16-248	DP-786-16-254
5 mm	DP-786-16-237	DP-786-16-243	DP-786-16-249	DP-786-16-255
6 mm	DP-786-16-238	DP-786-16-244	DP-786-16-250	DP-786-16-256
1 mm	DP-786-16-257	DP-786-16-263	DP-786-16-269	DP-786-16-275
2 mm	DP-786-16-258	DP-786-16-264	DP-786-16-270	DP-786-16-276
3 mm	DP-786-16-259	DP-786-16-265	DP-786-16-271	DP-786-16-277
4 mm	DP-786-16-260	DP-786-16-266	DP-786-16-272	DP-786-16-278
5 mm	DP-786-16-261	DP-786-16-267	DP-786-16-273	DP-786-16-279
6 mm	DP-786-16-262	DP-786-16-268	DP-786-16-274	DP-786-16-280
1 mm	DP-786-16-281	DP-786-16-287	DP-786-16-293	DP-786-16-299
2 mm	DP-786-16-282	DP-786-16-288	DP-786-16-294	DP-786-16-300
3 mm	DP-786-16-283	DP-786-16-289	DP-786-16-295	DP-786-16-301
4 mm	DP-786-16-284	DP-786-16-290	DP-786-16-296	DP-786-16-302
5 mm	DP-786-16-285	DP-786-16-291	DP-786-16-297	DP-786-16-303
6 mm	DP-786-16-286	DP-786-16-292	DP-786-16-298	DP-786-16-304

with ejector



On request also detachable available.

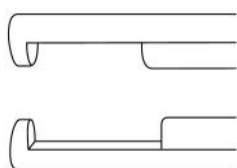
Laminectomy punches



COLCLOUGH

	x = 150 mm - 6"	x = 200 mm - 8"
3 mm	DP-786-16-305	DP-786-16-307
5 mm	DP-786-16-306	DP-786-16-308
3 mm	DP-786-16-309	DP-786-16-311
5 mm	DP-786-16-310	DP-786-16-312
3 mm	DP-786-16-313	DP-786-16-314
5 mm	DP-786-16-315	DP-786-16-316

Laminectomy punches


FERRIS-SMITH-KERRISON

	x = 180 mm - 7"
5 mm	DP-786-16-317
5 mm	DP-786-16-318

Laminectomy rongeurs

CUSHING

	2 mm x 10 mm	2 mm x 10 mm	2 mm x 10 mm
x = 130 mm - 5"	DP-786-16-319	DP-786-16-323	DP-786-16-327
x = 150 mm - 6"	DP-786-16-320	DP-786-16-324	DP-786-16-328
x = 180 mm - 7"	DP-786-16-321	DP-786-16-325	DP-786-16-329
x = 220 mm - 8 3/4"	DP-786-16-322	DP-786-16-326	DP-786-16-330


LOVE-GRUENWALD

	3 mm x 10 mm	3 mm x 10 mm	3 mm x 10 mm
x = 130 mm - 5"	DP-786-16-331	DP-786-16-335	DP-786-16-339
x = 150 mm - 6"	DP-786-16-332	DP-786-16-336	DP-786-16-340
x = 180 mm - 7"	DP-786-16-333	DP-786-16-337	DP-786-16-341
x = 220 mm - 8 3/4"	DP-786-16-334	DP-786-16-338	DP-786-16-342

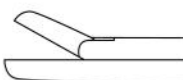

SPURLING

	4 mm x 10 mm	4 mm x 10 mm	4 mm x 10 mm
x = 130 mm - 5"	DP-786-16-343	DP-786-16-346A	DP-786-16-350
x = 150 mm - 7"	DP-786-16-344	DP-786-16-347	DP-786-16-351
x = 180 mm - 7"	DP-786-16-345	DP-786-16-348	DP-786-16-352
x = 220 mm - 8 3/4"	DP-786-16-346	DP-786-16-349	DP-786-16-353


CLOWARD

	6 mm x 10 mm		
x = 180 mm - 7"	DP-786-16-354		

Laminectomy rongeurs

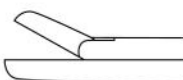
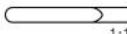

				
	FERRIS-SMITH	x = 180 mm - 7"	x = 180 mm - 7"	x = 180 mm - 7"
 1:1	2 mm x 10 mm	DP-786-16-355	DP-786-16-359	DP-786-16-362
 1:1	3 mm x 10 mm	DP-786-16-356	DP-786-16-360	DP-786-16-363
 1:1	4 mm x 10 mm	DP-786-16-357	DP-786-16-361	DP-786-16-364
 1:1	6 mm x 10 mm	DP-786-16-358		



Other lengths and executions are available upon request.

Laminectomy rongeurs



				
	CASPAR	x = 155 mm - 6"	x = 155 mm - 6"	x = 155 mm - 6"
 1:1	2 mm	DP-786-16-365	DP-786-16-369	DP-786-16-372
 1:1	3 mm	DP-786-16-366	DP-786-16-370	DP-786-16-373
 1:1	4 mm	DP-786-16-367	DP-786-16-371	DP-786-16-374
 1:1	5 mm	DP-786-16-375		

Laminectomy rongeurs

OLDENBERG

x = 180 mm - 7"	3.5 mm Ø	6.0 mm Ø
170 mm - 6¾"	DP-786-16-376	DP-786-16-377


SCHLESINGER

	3 mm x 10 mm
	x = 125 mm – 5"
190 mm – 7½"	DP-786-16-378

saw edge

Laminectomy rongeurs


Jaw fenestrated and serrated


CASPAR

	x = 140 mm - 5½"	x = 160 mm - 6¼"	x = 185 mm - 7¼"
2 mm x 12 mm	DP-786-16-379	DP-786-16-382	DP-786-16-387
3 mm x 12 mm	DP-786-16-380	DP-786-16-383	DP-786-16-388
4 mm x 14 mm	DP-786-16-381	DP-786-16-384	DP-786-16-389
5 mm x 14 mm		DP-786-16-385	DP-786-16-390
6 mm x 16 mm		DP-786-16-386	DP-786-16-391



	x = 140 mm - 5½"	x = 160 mm - 6¼"	x = 185 mm - 7¼"
3 mm x 12 mm	DP-786-16-392	DP-786-16-394	DP-786-16-397
4 mm x 14 mm	DP-786-16-393	DP-786-16-395	DP-786-16-398
5 mm x 14 mm		DP-786-16-396	DP-786-16-399



	x = 140 mm - 5½"	x = 160 mm - 6¼"	x = 185 mm - 7¼"
3 mm x 12 mm	DP-786-16-400	DP-786-16-402	DP-786-16-404
4 mm x 14 mm	DP-786-16-401	DP-786-16-403	DP-786-16-405

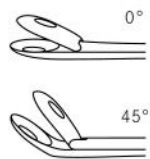
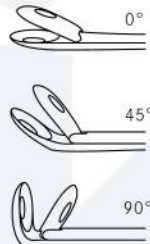
Laminectomy rongeurs

**WEIL-
BLAKESLEY**


	Fig. 1	Fig. 2	Fig. 3	Fig. 4	Fig. 5
	a = 3.0 mm	a = 3.5 mm	a = 4.5 mm	a = 5.0 mm	a = 5.5 mm
x = 120 mm - 4 3/4"	DP-786-16-406	DP-786-16-407	DP-786-16-408	DP-786-16-409	DP-786-16-410

x = 120 mm - 4 3/4"	DP-786-16-411	DP-786-16-412	DP-786-16-413	DP-786-16-414	DP-786-16-415
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x = 120 mm - 4 3/4"	DP-786-16-416	DP-786-16-417	DP-786-16-418	DP-786-16-419	DP-786-16-420
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	Fig. 1	Fig. 2	Fig. 3	Fig. 4	Fig. 5
	a = 3.0 mm	a = 3.5 mm	a = 4.5 mm	a = 5.0 mm	a = 5.5 mm
x = 180 mm - 7"	DP-786-16-421	DP-786-16-422	DP-786-16-423	DP-786-16-424	DP-786-16-425

x = 180 mm - 7"	DP-786-16-426	DP-786-16-427	DP-786-16-428	DP-786-16-429	DP-786-16-430
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