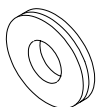

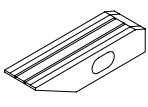
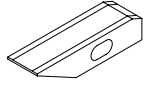
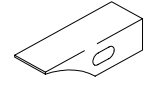
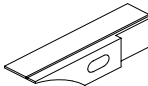
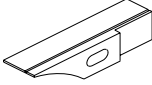
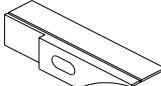

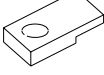
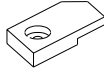
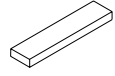







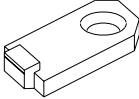
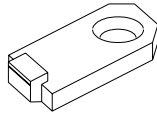
**MEC CL-10, CLS-10, CLS-10II, CLS-10III TOOLING (Updated July 2003)**

Item	OCA ID #	Tool number	Tool Name	Description / Size	Tool Sketch
<b>Custom wire size and full carbide tools can be made to order</b>					
<b>COILING TOOLS (items 1~113) - Prices subject to change without notice - shipping not included</b>					
<b>Items 1~15 (Feed Rollers 15X509-####) replace old Feed Rollers 02X029-####</b>					
<b>15X509-#### Feed Rollers are thicker, but will work with old feed rollers as well</b>					
1		15X509-1015	FEED ROLLER - 2 Grooves	0.10 & 0.15mm	
2		15X509-1823	FEED ROLLER - 2 Grooves	0.18 & 0.23mm	
3		15X509-2026	FEED ROLLER - 2 Grooves	0.20 & 0.26mm	
4		15X509-3040	FEED ROLLER - 2 Grooves	0.30 & 0.40mm	
5		15X509-3545	FEED ROLLER - 2 Grooves	0.35 & 0.45mm	
6		15X509-5060	FEED ROLLER - 2 Grooves	0.50 & 0.60mm	
7		15X509-5565	FEED ROLLER - 2 Grooves	0.55 & 0.65mm	
8		15X509-7080	FEED ROLLER - 2 Grooves	0.70 & 0.80mm	
9		15X509-7585	FEED ROLLER - 2 Grooves	0.75 & 0.85mm	
10		15X509-9010	FEED ROLLER - 2 Grooves	0.90 & 1.00mm	
11		15X509-F010	FEED ROLLER FLAT	For wire diameters between 0.1~0.2mm	 It is recommended that both feed rollers are grooved for wire sizes above 0.6mm
12		15X509-F020	FEED ROLLER FLAT	For wire diameters between 0.2~0.3mm	
13		15X509-F030	FEED ROLLER FLAT	For wire diameters between 0.3~0.4mm	
14		15X509-F040	FEED ROLLER FLAT	For wire diameters between 0.4~0.5mm	
15		15X509-F050	FEED ROLLER FLAT	For wire diameters between 0.5~0.6mm	
16		10X135-020	INLET GUIDE	For wire up to 0.2mm	
17		10X135-040	INLET GUIDE	For wire up to 0.4mm	
18		10X135-060	INLET GUIDE	For wire up to 0.6mm	
19		10X135-080	INLET GUIDE	For wire up to 0.8mm	
20		10X135-100	INLET GUIDE	For wire up to 1.0mm	
21		10X135-F	INLET GUIDE FLAT	FLAT	
22		02X031-F	WIRE GUIDE FLAT	FLAT	
23		02X031-R012	WIRE GUIDE - Right hand coil	0.12mm	
24		02X031-R013	WIRE GUIDE - Right hand coil	0.13mm	
25		02X031-R014	WIRE GUIDE - Right hand coil	0.14mm	
26		02X031-R015	WIRE GUIDE - Right hand coil	0.15mm	
27		02X031-R016	WIRE GUIDE - Right hand coil	0.16mm	
28		02X031-R018	WIRE GUIDE - Right hand coil	0.18mm	
29		02X031-R020	WIRE GUIDE - Right hand coil	0.20mm	
30		02X031-R023	WIRE GUIDE - Right hand coil	0.23mm	
31		02X031-R025	WIRE GUIDE - Right hand coil	0.25mm	
32		02X031-R026	WIRE GUIDE - Right hand coil	0.26mm	
33		02X031-R030	WIRE GUIDE - Right hand coil	0.30mm	
34		02X031-R032	WIRE GUIDE - Right hand coil	0.32mm	
35		02X031-R035	WIRE GUIDE - Right hand coil	0.35mm	
36		02X031-R040	WIRE GUIDE - Right hand coil	0.40mm	
37		02X031-R045	WIRE GUIDE - Right hand coil	0.45mm	
38		02X031-R050	WIRE GUIDE - Right hand coil	0.50mm	
39		02X031-R055	WIRE GUIDE - Right hand coil	0.55mm	
40		02X031-R060	WIRE GUIDE - Right hand coil	0.60mm	
41		02X031-R065	WIRE GUIDE - Right hand coil	0.65mm	
42		02X031-R070	WIRE GUIDE - Right hand coil	0.70mm	
43		02X031-R075	WIRE GUIDE - Right hand coil	0.75mm	
44		02X031-R080	WIRE GUIDE - Right hand coil	0.80mm	
45		02X031-R085	WIRE GUIDE - Right hand coil	0.85mm	
46		02X031-R090	WIRE GUIDE - Right hand coil	0.90mm	
47		02X031-R100	WIRE GUIDE - Right hand coil	1.00mm	

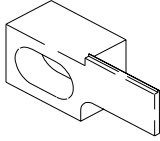
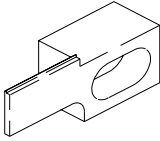
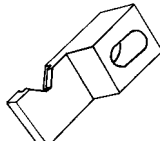
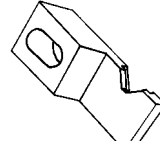
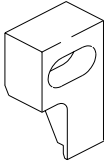
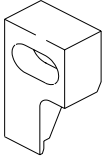
**MEC CL-10, CLS-10, CLS-10II, CLS-10III TOOLING (Updated July 2003)**

Item	OCA ID #	Tool number	Tool Name	Description / Size	Tool Sketch
<b>COILING TOOLS (items 1~113) - Prices subject to change without notice - shipping not included</b>					
<b>Carbide wire guides (items 48~53 ) made to order</b>					
<b>Generally used when using torsion attachment</b>					
48		02X034-R050	WIRE GUIDE - Right hand coil	0.50mm All carbide	
49		02X034-R060	WIRE GUIDE - Right hand coil	0.60mm All carbide	
50		02X034-R070	WIRE GUIDE - Right hand coil	0.70mm All carbide	
51		02X034-R080	WIRE GUIDE - Right hand coil	0.80mm All carbide	
52		02X034-R090	WIRE GUIDE - Right hand coil	0.90mm All carbide	
53		02X034-R100	WIRE GUIDE - Right hand coil	1.00mm All carbide	
54		02X031-L012	WIRE GUIDE - Left hand coil	0.12mm	
55		02X031-L013	WIRE GUIDE - Left hand coil	0.13mm	
56		02X031-L014	WIRE GUIDE - Left hand coil	0.14mm	
57		02X031-L015	WIRE GUIDE - Left hand coil	0.15mm	
58		02X031-L016	WIRE GUIDE - Left hand coil	0.16mm	
59		02X031-L018	WIRE GUIDE - Left hand coil	0.18mm	
60		02X031-L020	WIRE GUIDE - Left hand coil	0.20mm	
61		02X031-L023	WIRE GUIDE - Left hand coil	0.23mm	
62		02X031-L025	WIRE GUIDE - Left hand coil	0.25mm	
63		02X031-L026	WIRE GUIDE - Left hand coil	0.26mm	
64		02X031-L030	WIRE GUIDE - Left hand coil	0.30mm	
65		02X031-L032	WIRE GUIDE - Left hand coil	0.32mm	
66		02X031-L035	WIRE GUIDE - Left hand coil	0.35mm	
67		02X031-L040	WIRE GUIDE - Left hand coil	0.40mm	
68		02X031-L045	WIRE GUIDE - Left hand coil	0.45mm	
69		02X031-L050	WIRE GUIDE - Left hand coil	0.50mm	
70		02X031-L055	WIRE GUIDE - Left hand coil	0.55mm	
71		02X031-L060	WIRE GUIDE - Left hand coil	0.60mm	
72		02X031-L065	WIRE GUIDE - Left hand coil	0.65mm	
73		02X031-L070	WIRE GUIDE - Left hand coil	0.70mm	
74		02X031-L075	WIRE GUIDE - Left hand coil	0.75mm	
75		02X031-L080	WIRE GUIDE - Left hand coil	0.80mm	
76		02X031-L085	WIRE GUIDE - Left hand coil	0.85mm	
77		02X031-L090	WIRE GUIDE - Left hand coil	0.90mm	
78		02X031-L100	WIRE GUIDE - Left hand coil	1.00mm	
79		10X114-L	PITCH TOOL LEFT (A5)	Use for left hand coil, hook dia. equal to body dia., & no use of torsion attachment	
80		10X114-R	PITCH TOOL RIGHT (B5)	Use for right hand coil, hook dia. equal to body dia., & no use of torsion attachment	
81		04X140	PITCH TOOL	Right hand coil only: Use with the torsion attachment for ext. U hooks, multi-dia., etc.	
82		02X011	CUTTING TOOL	HSS	
83		02X011-E	CUTTING TOOL	EM10 Carbide	


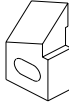

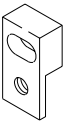
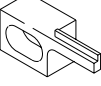
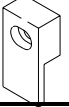
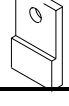

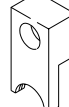
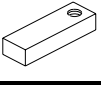
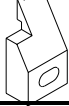

**MEC CL-10, CLS-10, CLS-10II, CLS-10III TOOLING (Updated July 2003)**

Item	OCA ID #	Tool number	Tool Name	Description / Size	Tool Sketch
<b>COILING TOOLS (items 1~113) - Prices subject to change without notice - shipping not included</b>					
84		10X113	ARBOR HOLDER	Use with 3 X 3mm arbor	
85		10X112-33(EM10)	ARBOR	3 X 3mm Carbide For coil I.D. up to 4.5mm	
86		10X112-44(EM10)	ARBOR	4 X 4mm Carbide For coil I.D. up to 5.0mm	
87		10X112-45(EM10)	ARBOR	4 X 5mm Carbide For coil I.D. between 4.5~7.0mm	
88		10X112-48(EM10)	ARBOR	4 X 8mm Carbide For coil I.D. between 7.0~10.0mm	
89		10X120-012	COILING POINT	0.12mm	
90		10X120-014	COILING POINT	0.14mm	
91		10X120-015	COILING POINT	0.15mm	
92		10X120-016	COILING POINT	0.16mm	
93		10X120-018	COILING POINT	0.18mm	
94		10X120-020	COILING POINT	0.20mm	
95		10X120-023	COILING POINT	0.23mm	
96		10X120-025	COILING POINT	0.25mm	
97		10X120-026	COILING POINT	0.26mm	
98		10X120-030	COILING POINT	0.30mm	
99		10X120-032	COILING POINT	0.32mm	
100		10X120-035	COILING POINT	0.35mm	
101		10X120-040	COILING POINT	0.40mm	
102		10X120-045	COILING POINT	0.45mm	
103		10X120-050	COILING POINT	0.50mm	
104		10X120-055	COILING POINT	0.55mm	
105		10X120-060	COILING POINT	0.60mm	
106		10X120-065	COILING POINT	0.65mm	
107		10X120-070	COILING POINT	0.70mm	
108		10X120-080	COILING POINT	0.80mm	
109		10X120-090	COILING POINT	0.90mm	
110		10X120-100	COILING POINT	1.00mm	
111		10X120-110	COILING POINT	1.10mm	
112		10X120-V05	COILING POINT - V Grooved	For wire up to 0.50mm Used to create high initial tension	
113		10X120-V10	COILING POINT - V Grooved	For wire up to 1.00mm Used to create high initial tension	

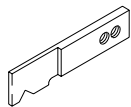
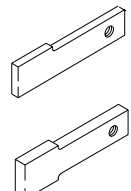
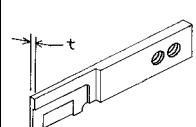
**MEC CL-10, CLS-10, CLS-10II, CLS-10III TOOLING (Updated July 2003)**

Item	OCA ID #	Tool number	Tool Name	Description / Size	Tool Sketch
<b>LOOP / HOOK TOOLS (items 114~158) - Prices subject to change without notice - shipping not included</b>					
Use "A" side in the front looping station for right hand coils - For left hand coils use "A" side in the opposite (cut side/rear) looping station					
Use "B" side in the cut side/rear looping station for right hand coils - For left hand coils use "B" side in the opposite (front) looping station					
<b>Base Tools (items 114~121) can be used for all types of hooks except extended hooks</b>					
114		10X121-A005	BASE TOOL A	Use for wire up to 0.2mm	
115		10X121-A015	BASE TOOL A	Use for wire up to 0.4mm	
116		10X121-A030	BASE TOOL A	Use for wire between 0.4~0.6mm	
117		10X121-A060	BASE TOOL A	Use for wire between 0.6~1.0mm	
118		10X121-B005	BASE TOOL B	Same as above	
119		10X121-B015	BASE TOOL B	Same as above	
120		10X121-B030	BASE TOOL B	Same as above	
121		10X121-B060	BASE TOOL B	Same as above	
<b>V Grooved Base Tools (Items 122~127) can be used for all types of hooks except extended hooks and varied diameter hooks (These are generally used for better hold on tight index springs and cause less deformation of the last coil before the hook)</b>					
122		10X121-VL015	V GROOVED BASE TOOL A	Use for wire up to 0.4mm	
123		10X121-VL030	V GROOVED BASE TOOL A	Use for wire between 0.4~0.6mm	
124		10X121-VL060	V GROOVED BASE TOOL A	Use for wire between 0.6~1.0mm	
125		10X121-VR015	V GROOVED BASE TOOL B	Same as above	
126		10X121-VR030	V GROOVED BASE TOOL B	Same as above	
127		10X121-VR060	V GROOVED BASE TOOL B	Same as above	
128		10X122-L015	SQUEEZE TOOL LEFT	Use for wire up to 0.4mm	
129		10X122-L030	SQUEEZE TOOL LEFT	Use for wire between 0.4~0.6mm	
130		10X122-L060	SQUEEZE TOOL LEFT	Use for wire between 0.6~1.0mm	
131		10X122-L080	SQUEEZE TOOL LEFT	Use for wire between 0.6~1.0mm	
132		10X122-R015	SQUEEZE TOOL RIGHT	Same as above	
133		10X122-R030	SQUEEZE TOOL RIGHT	Same as above	
134		10X122-R060	SQUEEZE TOOL RIGHT	Same as above	
135		10X122-R080	SQUEEZE TOOL RIGHT	Same as above	

**MEC CL-10, CLS-10, CLS-10II, CLS-10III TOOLING (Updated July 2003)**

Item	OCA ID #	Tool number	Tool Name	Description / Size	Tool Sketch
<b>LOOP / HOOK TOOLS (items 114~158) - Prices subject to change without notice - shipping not included</b>					
136		10X123-L08	HOOK TOOL - Left hand coil	8mm/20°	
137		10X123-L11	HOOK TOOL - Left hand coil	11mm/20°	
138		10X123-L15	HOOK TOOL - Left hand coil	15mm/20°	
139		10X123-R08	HOOK TOOL - Right hand coil	8mm/20°	
140		10X123-R11	HOOK TOOL - Right hand coil	11mm/20°	
141		10X123-R15	HOOK TOOL - Right hand coil	15mm/20°	
142		10X124-F10	SIDE HOOK TOOL	10mm/0°	
143		10X124-F15	SIDE HOOK TOOL	15mm/0°	
<b>U Hook Tools (items 144~150) used with CLS-10II and CLS-10III only.</b>					
<b>(CLS-10II can make extended U hooks on the front hooking station only. CLS-10III can make extended U hooks on both ends of the spring)</b>					
144		04X141-015	U HOOK SQUEEZE TOOL	For wire sizes up to 0.30mm	
145		04X141-030	U HOOK SQUEEZE TOOL	For wire sizes up to 0.60mm	
146		04X141-060	U HOOK SQUEEZE TOOL	For wire sizes up to 1.0mm	
147		04X142-A06	U HOOK BASE TOOL	For wire sizes up to 0.6mm	
148		04X142-A10	U HOOK BASE TOOL	For wire sizes up to 1.0mm	
149		04X143	U HOOK TOOL		
150		04X144	U HOOK TOOL HOLDER		
<b>German Base and Clamp Tools are available only as a set and are made to order</b>					
<b>Wire diameter, spring O.D., and direction of coil must be specified when ordering</b>					
151		10X136	GERMAN BASE TOOL	For right hand coil	
152		10X136-LW	GERMAN BASE TOOL	For left hand coil	
153		10X139	GERMAN CLAMP TOOL	For right hand coil	
154		10X139-LW	GERMAN CLAMP TOOL	For left hand coil	
155		10X137	GERMAN ANVIL	For right hand coil	
156		10X137-LW	GERMAN ANVIL	For left hand coil	
157		10X138-L	GERMAN HOOK TOOL	For left hand coil	
158		10X138-R	GERMAN HOOK TOOL	For right hand coil	

**MEC CL-10, CLS-10, CLS-10III TOOLING (Updated July 2003)**

Item	OCA ID #	Tool number	Tool Name	Description / Size	Tool Sketch
<b>TRANSFER TOOLS (items 159~176) - Prices subject to change without notice - shipping not included</b>					
159		10X126-1016	CLAMP TOOL - SPECIAL	(t)1.0 X (v)1.6mm For spring O.D. up to 1.5mm	
160		10X126-1040	CLAMP TOOL - SPECIAL	(t)1.0 X (v)4.0mm For spring O.D. between 1.5~3.0mm	
161		10X126-1060	CLAMP TOOL - SPECIAL	(t)1.0 X (v)6.0mm For spring O.D. between 3.0~6.0mm	
162		10X126-2016	CLAMP TOOL	(t)2.0 X (v)1.6mm For spring O.D. up to 1.5mm	
163		10X126-2040	CLAMP TOOL	(t)2.0 X (v)4.0mm For spring O.D. between 1.5~3.0mm	
164		10X126-2060	CLAMP TOOL	(t)2.0 X (v)6.0mm For spring O.D. between 3.0~6.0mm	
165		10X126-3540	CLAMP TOOL	(t)3.5 X (v)4.0mm For spring O.D. between 1.5~3.0mm	
166		10X126-3560	CLAMP TOOL	(t)3.5 X (v)6.0mm For spring O.D. between 3.0~6.0mm	
167		10X126-6011D	CLAMP TOOL	(t)6.0 X (v)11.0mm For spring O.D. between 5.0~12mm	
168		10X126-6040D	CLAMP TOOL	(t)6.0 X (v)4.0mm For spring O.D. between 1.5~3.0mm	
169		10X126-6060D	CLAMP TOOL	(t)6.0 X (v)6.0mm For spring O.D. between 3.0~6.0mm	
170		10X127-F05	CLAMP TOOL FLAT - SPECIAL	0.5mm thick	
171		10X127-F10	CLAMP TOOL FLAT	1.0mm thick	
172		10X127-F20	CLAMP TOOL FLAT	2.0mm thick	
173		10X127-F35	CLAMP TOOL FLAT	3.5mm thick	
174		10X127-F60	CLAMP TOOL FLAT	6.0mm thick	
175		10X125-05	CLAMP TOOL W/ BLADE	t = 0.5mm Use for large index, few turns, or short springs	
176		10X125-10	CLAMP TOOL W/ BLADE	t = 1.0mm Use for large index, few turns, or short springs	