

HIGH SPEED SLIDER WINDING HEADS FOR THE BENCH MODELS

The high speed winding heads are designed for random layer winding. Typical applications are the production of transformer primary windings and windings where large amounts of turns are required in a short production time. All of the winding heads work with a side slider which de-reeles the wire from the edge of the winding magazine. The magazine itself is driven by precision made friction rollers which enhance the life of the magazine. As the wire comes off the magazine it is guided between two wire guide plates before being placed on to the core. All high speed winding heads feature the quick action magazine opening facility and a range of "S" type magazines can be supplied for taller section cores. Customised components for special applications can be supplied upon request.



WINDING HEAD DATA	RW 10		RW 20		RW 25		RW 30		RW 40	
	mm	inch / AWG	mm	inch / AWG	mm	inch / AWG	mm	inch / AWG	mm	inch / AWG
- WIRE RANGE	0,05 - 0,3	28 ½ - 44	0,08 - 0,7	21 - 40	0,08 - 1,0	18 - 40	0,1 - 1,0	18 - 38	0,1 - 1,0	18 - 38
- MAGAZINE DIAMETER	100	4	150	6	185	7,28	210	8,26	385	15,15
- FINISHED CORE OD	5 - 30	0,20 - 1,18	5 - 150	0,20 - 6,0	20 - 150	0,78 - 6,0	25 - 150	1,0 - 6,0	25 - 254	1,0 - 10,0
- FINISHED CORE ID	2,5	0,098	7	0,276	10	0,394	10	0,394	12	0,472
- FINISHED CORE HEIGHT	15	0,59	55	2,16	65	2,56	80	3,15	120	4,72
- MAX WINDING SPEED RPM	1800		1600		1600		1500		550	
- COMPATIBLE ROLLER TABLES	RW 111		RW 111, RW 111-V, RW 222		RW 112 RW 222, RW 222-V		RW 222, RW 222-V		RW 222	
- COMPATIBLE M/C BASE	RWL, RWL-E, RWA, All RWE machine series		RWL, RWL-E, RWA, All RWE machine series		RWL, RWL-E, RWA, All RWE machine series		RWL, RWL-E, RWA, All RWE machine series		RWL, RWL-E, RWA, All RWE machine series	

MAGAZINE DATA BASE WITH WIRE LENGTH IN METERS: FOR WIRE LENGTH IN FEET, MULTIPLY BY FACTOR 3,28

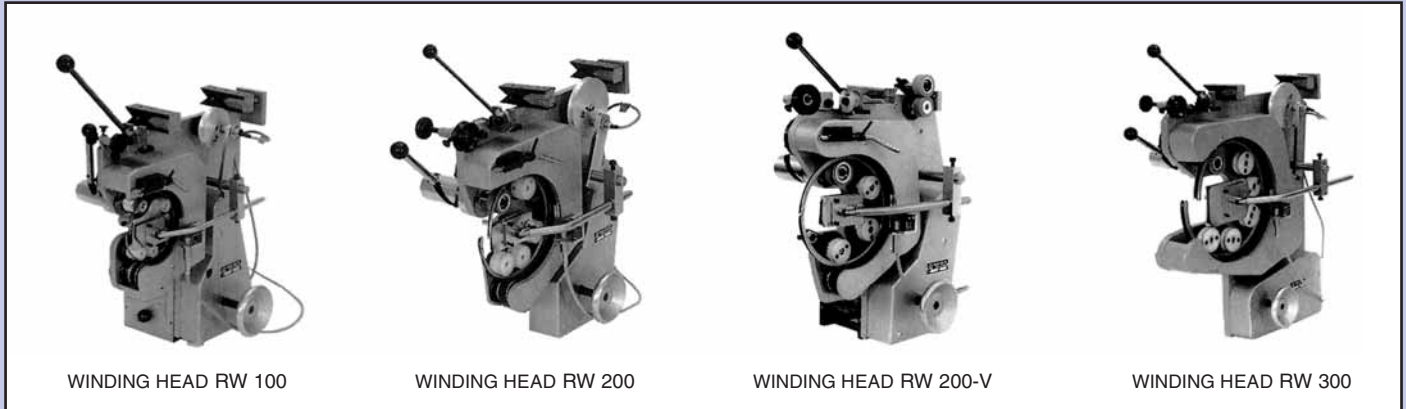
Magazine type	Final hole diameter		0,05	0,08	0,10	0,15	0,20	0,25	0,30	0,40	0,50	0,60	0,71	0,80	0,90	1,0	mm
	mm	inch	44	40	38	34½	32	30	28 ½	26	24	22 ½	21	20	19	18	AWG
10/2	2,5	0,098	60	25													
2.5	3	0,118	100	40	28	13											
3	3,5	0,138	140	60	40	19		7									
3.5	4	0,157	190	80	50	25	15	10	7								
4	4,5	0,177	280	120	75	35	22	14	10								
10/4,5 SG	5,5	0,236	166	66	20	12	7,9	5,6									
5 SG	6	0,276	211	84	55	25	15	10	7								
6	7,5	0,295	260	110	80	35	22	15	10								
7	8	0,315	368	150	100	48	28	18	13								
8	9	0,354	500	200	130	63	37	24	17								
20/6	7	0,276		115	77	36	21	14									
8	10	0,394		280	190	85	50	34	24								
10	12	0,472		440	300	140	80	54	38	22	15	10					
12	14	0,551		650	430	200	120	80	56	33	22	15					
14	16	0,623		1300	860	400	240	160	110	65	43	30	23				
16	22	0,866		1950	1300	600	360	240	167	98	65	46	35				
20-S	25	0,984		3650	2430	1140	670	450	313	183	122	85	65				
25-S	30	1,181		4250	2840	1330	780	520	364	213	142	100	75				
30-S	35	1,378		6000	4000	1870	1100	730	514	300	200	140	107				
40-S	40	1,575		8800	5900	2740	1600	1080	750	440	295	205	156				
25/8	10	0,394		347	235	105	62	42		17							
10	12	0,472		545	372	175	99	66	47	27	18						
12	14	0,551		806	533	248	148	99	69	40	27	18	12	9			
14	16	0,623		1612	1066	496	297	198	136	80	53	37	28	22			
16	20	0,787		2418	1612	744	446	297	207	121	80	57	43	36	29		
20-S	25	0,984		4526	3013	1413	830	558	388	226	151	105	80	55	46		
25-S	30	1,181		5270	3512	1649	967	644	451	264	176	124	93	70	58		
30-S	35	1,378		7440	4960	2318	1364	905	637	372	248	173	132	79	66		
40-S	40	1,575		10900	7316	3397	1984	1339	930	545	365	254	193	96	66		
30/8	10	0,394			260	120	72	48	34	20							
10	12	0,472			410	190	113	75	53	30	20						
12	14	0,551			600	280	165	110	77	45	30			14	11		
14	16	0,623			1200	560	330	220	154	90	60	42	33	26	21		
16 (-S)	20	0,787			1900	890	520	350	245	140	95	66	53	42	33		
20 (-S)	25	0,984			3150	1470	865	578	405	235	158	110	84	63	53		
25 (-S)	30	1,181			3895	2875	1110	726	521	300	200	140	100	80	66		
30-S	35	1,378			4530	2120	1245	830	580	340	225	158	121	90	75		
40-S	40	1,575			5650	2640	1550	1035	725	425	280	198	150	110	94		
50-S	50	1,969			8190	3940	2332	1527	1096	631	416	294	213	169	138		
40/10	12	0,472			740	360	210	140	100	60	40						
12	14	0,551			1150	560	330	210	155	90	60						
14	16	0,623			2310	1100	650	430	310	180	117						
16 (-S)	20	0,787			3680	1770	1050	690	490	280	187	132	97	76	62		
20 (-S)	25	0,984			5660	2720	1610	1060	760	435	290	204	150	117	96		
25 (-S)	30	1,181			7060	3400	2010	1320	950	545	360	255	187	146	120		
30-S	35	1,378			8700	4070	2400	1580	1130	650	420	300	210	170	130		
40-S	40	1,575			11000	5100	3000	2000	1400	830	540	380	270	210	170		
55-S	50	1,969							2475	1430	930	650	475	377	299		
60-S	55	2,17							3171	1833	1192	838	608	483	383		

(S)= SPLIT OR SEGMENT TYPE MAGAZINE

S= ONLY SEGMENT TYPE MAGAZINE

FLAT BELT WINDING HEADS FOR THE BENCH MODELS

The flat belt winding heads are designed for winding heavy wires into small internal diameters without the use of gear racks or side sliders. Typical applications are the production of chokes, filters and small transformer secondary windings. All of the winding heads work with a flat toothed belt which drives the magazine. The winding tension is varied by applying pressure on the smooth edge of the magazine where the wire is dereeled from. All of the belt winding heads feature a range of robust split magazines together with the magazine quick opening device. For balancing type chokes there is a wire guide finger which aids in the production of equal start, finish windings. For the winding head type RW 300, "S" type and "K" type magazines can be supplied for taller section cores and transformer secondary windings. Customised components for special applications can be supplied upon request.



WINDING HEAD DATA	RW 100		RW 200		RW 200 V		RW 300	
	mm	inch / AWG	mm	inch / AWG	mm	inch / AWG	mm	inch / AWG
- WIRE RANGE	0,2 - 0,9	21 - 32	0,3 - 1,0	18 - 28 ½	0,4 - 1,6	14 - 25	0,3 - 1,8	14 - 26
- MAGAZINE DIAMETER	97	3,8	145	5,7	145	5,7	210	8,27
- FINISHED CORE OD	5 - 35	0,2 - 1,58	16 - 150	0,63 - 6,0	16 - 150	0,63 - 6,0	35 - 150	1,38 - 6,0
- FINISHED CORE ID	3	0,118	5	0,197	6	0,236	8	0,315
- FINISHED CORE HEIGHT	15	0,59	25	0,98	25	0,98	60	2,36
- MAX.WINDING SPEED RPM	1100		1000		1000 (ø 0,4 - 1,0 mm) 400 (ø 1,1 - 1,6 mm)		700 (ø 0,3 - 1,0 mm) 300 (ø 1,1 - 1,8 mm)	
- COMPATIBLE ROLLER TABLES	RW 111 (5 - 30) RW 111-V (11 - 50)		RW 111-V, RW 112 RW 222		RW 111-V, RW 112 RW 222		RW 222 RW 222-V	
- COMPATIBLE M/C BASE	RWL , RWL-E, RWA , All RWE machine series		RWL , RWL-E, RWA , All RWE machine series		RWL , RWL-E, RWA , All RWE machine series		RWL , RWL-E, RWA , All RWE machine series	

MAGAZINE DATA BASE WITH WIRE LENGTH IN METERS: FOR WIRE LENGTH IN FEET, MULTIPLY BY FACTOR 3,28

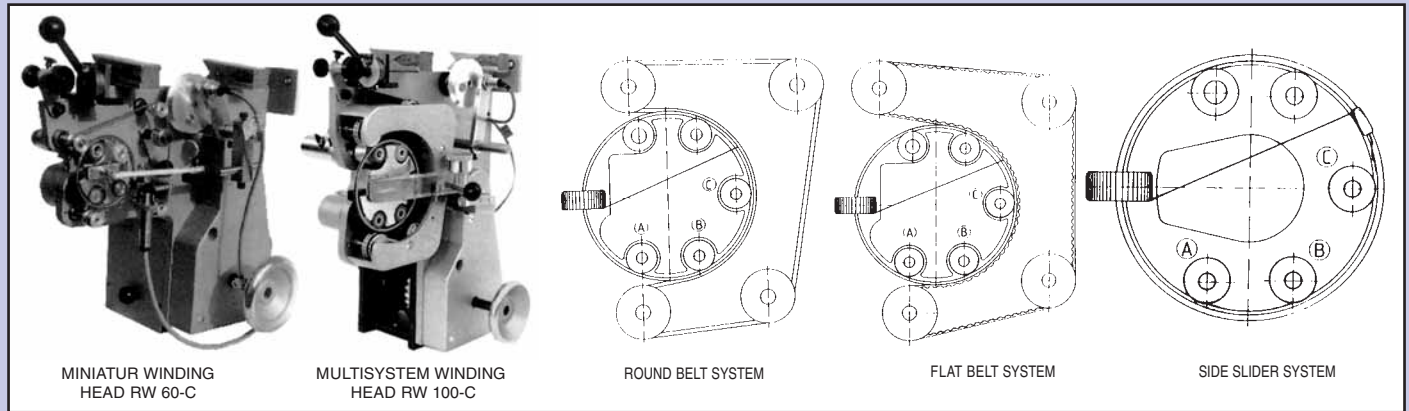
Magazine type	Final hole min.		0,20	0,30	0,40	0,50	0,60	0,71	0,80	0,90	1,0	1,12	1,25	1,32	1,4	1,5	1,6	1,7	1,8	mm
	mm	inch	32	28 ½	26	24	22 ½	21	20	19	18	17	16 ½	16	15 ½	15	14 ½	14	13 ½	AWG
100/2	3	0,118	6	2,9																
2,25	3	0,118	5,7	2,7	1,5															
2,5	3,5	0,138	10	4,6	2,5															
3	4	0,158	14	6,6	3,8	2,5														
3,5	5	0,197	21	10	6	4	2,6	1,9												
4	5,5	0,217	28	13	8	5	3,5	2,5	2,4	1,9										
4,5	6	0,236	37	18	10	7	5	3	3,2	2,5										
5	6,5	0,256	46	22	13	9	6	4,5	3,4	2,7										
5,5	7,5	0,295	60	29	17	11	8	5,5	4,8	3,8										
6	8	0,315	77	36	21	14	10	7												
200/3	5	0,197		11	6,5															
3,5	5,5	0,217		15	8,5	5,5														
4	6	0,236		20	12	8														
4,5	6,5	0,256		30	17	11	8													
5	7	0,276		36	21	14	10	7	5	4										
5,5	7,5	0,295		47	27	18	12	9	7	6	5									
6	8	0,315		58	33	22	15	11	9	7	6									
6,5	8,5	0,335		75	42	28	19	14	11,9	9	8									
7	9	0,355		87	60	33	23	17	13	11	9									
7,5 (K)	10,5	0,413		115	66	43	30	22	17,5	14	11									
8	11	0,433		140	81	53	37	27	21	17	14									
200 -V/4,2	6	0,236			8	5,3	3,7	2,7	2,1	1,7	1,4	1	0,9	0,8						
4,7	7	0,276			11,0	7,2	5,0	3,7	2,9	2,3	1,9	1,5	1,4	1,2						
5,1	7,5	0,295			14,6	9,5	6,7	4,8	3,8	3,0	2,5	2,1	1,8	1,6	1,4	1,3	1,1			
5,8	8,5	0,335			19,5	12,7	8,9	6,5	5,1	4,0	3,35	2,7	2,15	1,95						
6,3	9,0	0,355			25	16,2	11,4	8,3	6,6	5,2	4,2	3,4	2,78	2,5	2,2	1,9	1,7			
6,6	9,5	0,374			32,8	21,3	15,0	10,9	8,6	6,8	5,6	4,5	3,65	3,28	2,9	2,5	2,2			
7,0 (K)	10,0	0,394			39	25,6	18,0	13,0	10,4	8,2	6,7	5,4	4,38	3,9	3,5	3	2,7			
7,4 (K)	11,0	0,433			48	31,5	22,1	16,0	12,7	10	8,3	6,6	5,4	4,8	4,3	3,7	3,3			
7,8 (K)	11,5	0,453			65,5	42,6	29,9	21,7	17,2	13,6	11,2	9	7,3	6,5	5,8	5,1	4,5			
8,3 (K)	12	0,473			73,1	47,5	33,4	24,2	19,2	15,2	12,5	10	8,1	7,3	6,5	5,7	5			
8,6 (K)	12,5	0,493			91,8	59,7	41,9	30,5	24,2	19,2	15,7	12,6	10,2	9,1	8,2	7,1	6,3			
300/5	8	0,315		42	24	16	11	8	6,3											
6	9	0,355		62	36	23	16,5	12	9,5											
7	10	0,394		82	47	31	22	16	12,7											
8	11	0,433		92	54	36	25	18	15											
9	12	0,472		149	86	56	40	29	23	19	15,5	13	10	8	7					
10 (S) (K)	13	0,512		213	123	81	57	42	33	27	22,5	19	16,5	13	10	8	6,5	5	4	
11 (S) (K)	14	0,551		293	170	111	79	57	45	37	31	25	23	19	16	12	9	7	5	
12 (S) (K)	15	0,591		381	219	145	102	74	59	48	40	33	30	25	21	16	12	9	6,5	
13-S (K)	17	0,669		430	227	162	113	82	65	52	42	34	31	26	22	17	13	10	7	
16-S (K)	20	0,788		480	277	180	127	92	73	58	47	38	30	27	24	21	19	17	15	
20-S (K)	22	0,867		580	335	218	153	111	88	70	57	46	37	33	29	26	23	20	18	
30-S	24	0,945		770	440	290	200	150	117	90	75	60	50	40	38	30	24	19	14	
40-S	30	1,182		881	509	331	232	169	134	106	87	70	56	50	45	39	35	31	27	

MODEL 300/5 - 300/13 = SPLIT TYPE, MODEL 300/10 - 300/20 = HINGE TYPE (K), MODEL 300/10 - 300/40 = SEGMENT TYPE (S)



MINIATUR AND MULTISYSTEM WINDING HEADS FOR BENCH MODELS

The multisystem winding head is designed for winding fine wires onto small cores. It incorporates three proven winding systems on one head, this gives you the best winding solution possible for each specific application, and offers you the maximum production capability with a minimum cost. Typical applications are the production of small pulse transformers, small primary windings and small chokes. The winding heads are designed for instant change over from one system to another and features a range of flat and round belts, side sliders and robust quick opening magazines.



WINDING HEAD DATA	ROUND BELT SYSTEM RW 60-C		FLAT BELT SYSTEM RW 60-C		ROUND BELT SYSTEM RW 100-C		FLAT BELT SYSTEM RW 100-C		SIDE SLIDER SYSTEM RW 100-C	
	mm	inch / AWG	mm	inch / AWG	mm	inch / AWG	mm	inch / AWG	mm	inch / AWG
- WIRE RANGE	0,06- 0,15	34 1/2 - 42 1/2	0,15- 0,6	26 - 34 1/2	0,07 - 0,5	25 - 41	0,15 - 0,71	21 - 34 1/2	0,05 - 0,3	28 1/2 - 44
- MAGAZINE DIAMETER	60	2,4	60	2,4	97	3,8	97	3,8	99	3,9
- FINISHED CORE OD	5 - 30	0,2 - 1,18	5 - 30	0,2 - 1,18	5 - 35	0,2 - 1,3	5 - 35	0,2 - 1,3	5 - 35	0,2 - 1,3
- FINISHED CORE ID	1,9	0,075	2,1	0,082	2,5	0,098	3,0	0,118	7,0	0,276
- FINISHED CORE HEIGHT	10	0,39	10	0,39	15	0,59	15	0,59	15	0,59
- MAX. WINDING SPEED RPM	1800		1800		1800		1800		1800	
- COMPATIBLE ROLLER TABLES	RW 111(5-30)		RW 111(5-30)		RW 111 (5 - 30) RW 111-V (10 - 50)		RW 111 (5 - 30) RW 111-V (10 - 50)		RW 111 (5 - 30) RW 111-V (10 - 50)	
- COMPATIBLE M/C BASE	RWL, RWL-E, RWA, All RWE machine series		RWL, RWL-E, RWA, All RWE machine series		RWL, RWL-E, RWA, All RWE machine series		RWL, RWL-E, RWA, All RWE machine series		RWL, RWL-E, RWA, All RWE machine series	

MAGAZINE DATA BASE WITH WIRE LENGTH IN METERS: FOR WIRE LENGTH IN FEET, MULTIPLY BY FACTOR 3,28

Magazine type	Final hole mm	inch	0,05	0,06	0,071	0,08	0,09	0,1	0,112	0,125	0,132	0,15	0,18	0,20	0,25	0,3	0,355	0,4	0,5	0,6	0,71	0,80	0,90	1,0	mm
			44	42 1/2	41	40	39	38	37	36	35 1/2	34 1/2	33	32	30	28 1/2	27	26	24	22 1/2	21	20	19	18	AWG
Round and flat belt																									
60 - C/1,2	1,6	0,062		4,8	3,3	2,7	2,1	1,7	1,4	1,1	0,9	0,7													
1,4	1,8	0,070		6,3	4,4	3,6	2,7	2,3	1,8	1,5	1,3	1,0													
1,6	2,0	0,078		11,2	7,9	6,3	5,0	4,1	3,4	2,7	2,4	1,8	1,3	1,1											
1,8	2,2	0,086		19,2	13,5	10,9	8,7	7,2	5,8	4,7	4,2	3,3	2,4	1,9	1,2	0,9									
2,0	2,4	0,094		25,8	18,2	14,7	11,7	9,6	7,8	6,3	5,7	4,5	3,2	2,6	1,7	1,2	0,9	0,7							
2,5	2,89	0,114		50,5	35,7	28,8	22,8	18,9	15,3	12,4	11,2	8,8	6,3	5,2	3,4	2,4	1,7	1,3	0,9	0,6					
2,8	3,2	0,125		75	52	42	33	28	22	17	15	12	9	7,5	5	3,5	2,3	2,0	1,3	0,9					
Round and flat belt																									
100 - C																									
100 - C/1,8	2,2	0,087			27	21	17	14	11	9	8	6													
2	2,5	0,098			42	34	25	19	18	14	13	10	7,2	6	4	2,9									
2,25	2,75	0,108			44	35	26	20	19	15	14	9,4	6,8	5,7	3,6	2,7	2,0	1,5							
2,5	3	0,118			70	57	45	37	30	24	22	17	12	10	6,8	4,8	3,5	2,6							
3	3,5	0,138				80	63	52	42	34	31	24	17	14,5	9,5	6,8	4,9	3,94	2,5						
3,5	4,5	0,177				120	95	77	63	51	46	36	25	21	14	10	7,2	6	4	2,6	1,3				
4	5	0,197				156	123	102	83	67	60	47	34	28	18	13	9,6	8	5	3,5	2,5				
4,5	5,5	0,217				185	148	122	99	80	72	57	41	37	22	18	11	10	7	5	3				
5	6	0,236				243	193	159	130	105	95	74	53	46	29	22	15	13	9	6	4,5				
Side slider																									
100 - C																									
10/4,5 - SG	5	0,2	166	116	82	66	52	43	35	28	25	20	14	12	7,9	5,6									
5 - SG	5,5	0,216	211	148	104	84	67	55	45	36	32	25	18	15	10	7									
6 - SG	7	0,276	260	185	130	110	84	80	56	45	41	35	23	22	15	10									
7 - SG	8	0,315	368	258	182	150	117	100	78	63	57	48	32	28	18	13									
8 - SG	9	0,355	500	350	248	200	158	130	107	86	77	63	44	37	24	17									
9 - SG	10	0,394	700	490	307	280	221	182	150	120	107	88	61	51	33	23,8									
10 - SG	11	0,433	1120	784	331	448	354	291	239	192	172	141	98	82	54	38									
11 - SG	12	0,472	1512	1058	447	604	478	393	323	260	232	190	133	111	72	51									
12 - SG	13	0,512	2192	1534	648	878	693	570	469	377	337	276	192	162	105	75									

(EACH SYSTEM COMES WITH ALL THE NECESSARY BELTS OR SLIDER S)

GEAR RACK TAPING HEADS FOR THE BENCH MODELS

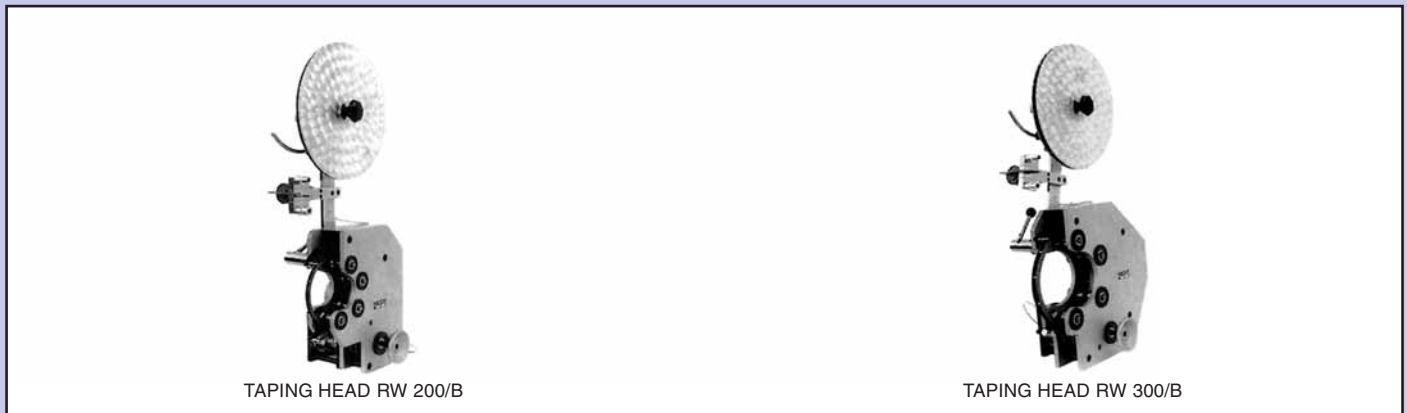
These taping heads work with a gear system similar to the gear rack winding heads but vary in one major way. That is as the tape is loaded on to the tape magazine it is also taped on to the core. A flat leather belt round the outside of the tape magazine controls the taping tension and is infinitely variable. The tape is automatically cut when the correct length of tape is loaded for the complete operation. Customised components for special applications can be supplied upon request.



TAPING HEAD DATA	RW 0/B		RW 1/B		RW 2/B		RW 3/B		RW 4/B	
	mm	inch / AWG	mm	inch / AWG	mm	inch / AWG	mm	inch / AWG	mm	inch / AWG
- TAPE WIDTH	4 - 10	0,157 - 0,394	8 - 13	0,315 - 0,512	9 - 20	0,354 - 0,787	9 - 25	0,354 - 0,984	9 - 25	0,354 - 0,984
- BUILD UP FACTOR	+ 11	+ 0,433	+ 13	+ 0,512	+ 17	+ 0,669	+ 20	+ 0,787	+ 21	+ 0,827
- MAGAZINE DIAMETER	86	3,386	139	5,472	221	8,7	241	9,488	347	13,39
- FINISHED CORE OD	25 - 150	1 - 6	25 - 150	1 - 6	25 - 350	1 - 14	40 - 350	1,5 - 14	60 - 350	2,4 - 14
- FINAL ID WITH SMALLEST TAPE	15	0,59	21	0,83	26	1,0	29	1,14	30	1,181
- FINISHED CORE HEIGHT	35	1,38	50	1,97	80	3,15	100	3,94	150	5,9
- MAX.TAPING SPEED RPM	230		250		240		150		80	
- COMPATIBLE ROLLER TABLES	RW 222		RW 222 RW 222-V		RW 222, RW 222-V RW 332, RW 333		RW 222, RW 222-V RW 332, RW 333		RW 332 RW 333	
- COMPATIBLE M/C BASE	RWL , RWL-E, RWA, All RWE machine series		RWL , RWL-E, RWA, All RWE machine series		RWL , RWL-E, RWA, All RWE machine series		RWL , RWL-E, RWA, All RWE machine series		RWL , RWL-E, RWA, All RWE machine series	

HIGH SPEED TAPING HEADS FOR BENCH MODELS

These taping heads work with a special belt drive system which enable them to work without the use of gear racks: this allows the belt taping heads to tape into smaller internal diameters at a higher speed. They all incorporate the RUFF quick action opening, closing system which reduces handling time. The taping operation is fully automatic and controlled from a foot switch.



TAPING HEAD DATA	RW 200/B		RW 300/B	
	mm	inch	mm	inch
- TAPE WIDTH	4 - 10	0,157 - 0,394	6 - 18	0,237 - 0,708
- BUILD UP FACTOR	+ 9	+ 0,354	+ 11	+ 0,433
- MAGAZINE DIAMETER	154	5,9	215	8,46
- FINISHED CORE OD	16 - 150	0,63 - 5,9	25 - 150	1 - 5,9
- FINAL ID WITH SMALLEST TAPE	13 WITH 4 mm TAPE	0,512 WITH 0,157 TAPE	19 WITH 8mm TAPE	0,748 WITH 0,315 TAPE
- FINISHED CORE HEIGHT	50	1,97	80	3,15
- MAX.TAPING SPEED RPM	300		300	
- COMPATIBLE ROLLER TABLES	RW 111-V, RW 112, RW 222		RW 222, RW 222-V, RW 333, RW 332	
- COMPATIBLE M/C BASE	RWL , RWL-E, RWA, All RWE machine series		RWL , RWL-E, RWA, All RWE machine series	

F.I.D CALCULATION FOR ALL TAPING HEADS: TAPE WIDTH + BUILD UP FACTOR = F.I.D REQUIRED



ROLLER TABLES FOR THE BENCH MODELS

RUFF supplies a choice of seven different interchangeable roller tables. Their main purpose is to transport the core when winding or taping operations are carried out. They are connected to the machine base and held with two or four fixing bolts which allow them to be changed in less than two minutes. Three rubber rollers are infinitely adjustable to clamp any size of core within their range. A large range of parallel and tapered rollers are available to suit individual winding requirements and special extension and designs can be supplied upon request.

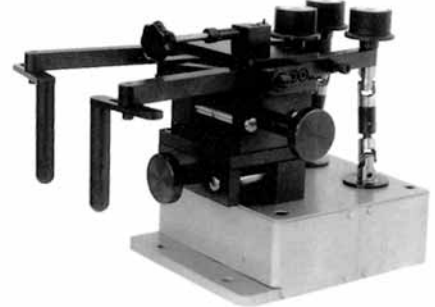
ROLLER TABLES WITH RUFF'S QUICK ACTION CLAMPING DEVICE.



ROLLER TABLE RW 111 (LIGHT DUTY)



ROLLER TABLE RW 111-V (MEDIUM DUTY)



ROLLER TABLE RW 112 (HEAVY DUTY)

ROLLER TABLE WITH RUFF'S SWIVEL OPENING DEVICE FOR FAST CORE LOADING.



ROLLER TABLE RW 222 (LIGHT DUTY)



ROLLER TABLE RW 222-V (MEDIUM DUTY)



ROLLER TABLE RW 333 OR RW 332 (HEAVY DUTY)

COMBINATION POSSIBILITIES BETWEEN ROLLER TABLES AND WINDING HEADS

COIL OD	HEAD	0	1	2	3	4	4 V	10	20	25	30	40	100	100-C	200	200-V	300	300-V	0/B	1/B	2/B	3/B	4/B	200/B	300/B	
0,20 - 1,18 RW 111	inch							0,20 1,18	0,30 1,18				0,20 1,18	0,20 1,18												
	5 - 30 mm							5 - 30	8 - 30				5 - 30	5 - 30												
0,40 - 1,58 RW111-V	inch								0,63 - 2,0				0,43 - 2,0	0,40 - 2,0	0,63 - 2,0	0,63 - 2,0									0,63 - 2,0	
	10 - 50 mm								16 - 50				11 - 50	10 - 50	16 - 50	16 - 50									16 - 50	
0,71 - 2,75 RW 112	inch															0,71 - 2,75	0,71 - 2,75								0,71 - 2,75	
	18 - 70 mm															18 - 70	18 - 70								18 - 70	
1,0 - 6,0 RW 222	inch	1,0 - 6,0	1,0 - 6,0	1,0 - 6,0	1,0 - 6,0				1,0 - 6,0	1,0 - 6,0	1,0 - 6,0				1,0 - 6,0	1,0 - 6,0	1,38 - 6,0	1,38 - 6,0	1,0 - 6,0	1,0 - 6,0	1,0 - 6,0	1,0 - 6,0		1,0 - 6,0	1,0 - 6,0	
	25 - 150 mm	25 - 150	25 - 150	25 - 150	25 - 150				25 - 150	25 - 150	25 - 150				25 - 150	25 - 150	35 - 150	35 - 150	25 - 150	25 - 150	25 - 150	25 - 150		25 - 150	25 - 150	
1,57 - 6,0 RW 222-V	inch		1,5 - 6,0	1,5 - 6,0	1,5 - 6,0					1,5 - 6,0	1,5 - 6,0	1,5 - 6,0					1,5 - 6,0	1,5 - 6,0		1,5 - 6,0	1,5 - 6,0	1,5 - 6,0			1,5 - 6,0	
	40 - 150 mm		40 - 150	40 - 150	40 - 150					40 - 150	40 - 150	40 - 150					40 - 150	40 - 150		40 - 150	40 - 150	40 - 150			40 - 150	
2,4 - 10,0 RW 332	inch			2,4 - 10,0	2,4 - 10,0	2,4 - 10,0	2,4 - 10,0						2,4 - 10,0									2,4 - 10,0	2,4 - 10,0	2,4 - 10,0		3,5 - 10,0
	60 - 254 mm			60 - 254	60 - 254	60 - 254	60 - 254						60 - 254									60 - 250	60 - 250	60 - 250		90 - 250
3,15 - 14 RW 333	inch			3,15 - 14,0	3,15 - 14,0	3,15 - 14,0	3,15 - 14,0															3,15 - 14,0	3,15 - 14,0	3,15 - 14,0		3,15 - 14,0
	80 - 350 mm			80 - 350	80 - 350	80 - 350	80 - 350															80 - 350	80 - 350	80 - 350		80 - 350