

Stand alone tapping station to be combined with toroidal winding machines for double head applications - Model RWS-Tape

RUFF has designed a low cost standardised tapping station in order to replace the oneway special and expensive double head machine. It is a flexible tapping system that can be placed next to existing toroidal winding machines and therefore enables simultaneous winding and tapping of transformers in the most economical method. The head is mounted on a ground plate which sits on

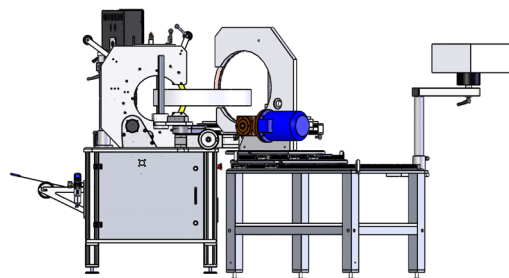
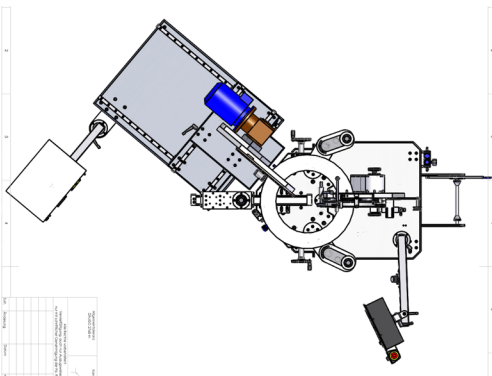
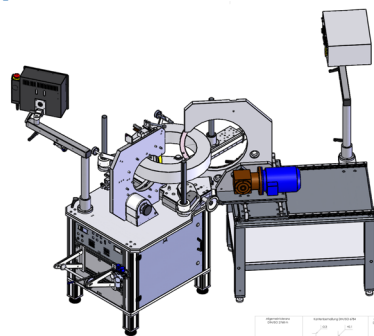
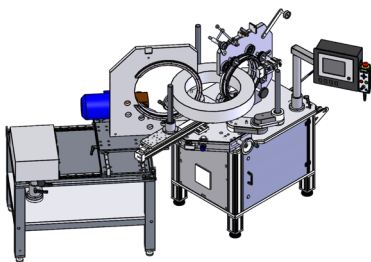
sliding rails and enables to slide the head easily into the core. It incorporates the RUFF modular system and can be equipped with interchangeable heads. One or more working stations can be combined with a winding machine.









controller	integral with 1 electronic counter
taping speed	up to 140 rpm
core drive	not required as the core drive is given from toroidal winding machines which is placed next to
winding head drive	electronic controlled 3-phase motor 1,5 kW
supply voltages	230, 110, 240 V / 50 Hz / AC / 16 A
machine size	1100 x 700 mm
machine weight	170 kg net, 270 kg gross



Simultaneous tapping and winding operation

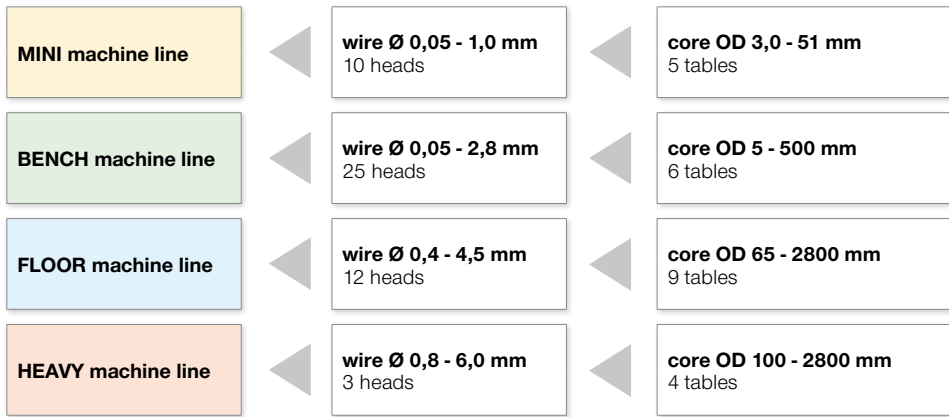


<p>kleine Spulen mit Feindraht small coils with fine wire</p> <p>bare core size mm turns x Ø wire size mm wound coil size mm machine base roller table winding head + magazine</p>	 <p>6,7 x 6,7 x 4,8 37 x 0,20 7,3 x 1,9 x 5,3 MINI RW 111-MINI (F.B.) RW 60-MINI + 1,6</p>	 <p>7 x 3,2 x 3 150 x 0,08 bifilar 7,4 x 2,3 x 3,6 MINI RW 111-MINI (R.B.) RW 60-MINI + 1,6</p>	 <p>6,2 x 4,4 x 5,3 150 x 0,08 trifilar 7,4 x 2,3 x 3,6 MINI RW 111-MINI (R.B.) RW 45-MINI + 1,8</p>	 <p>6,6 x 3 x 2,9 1 layer x 0,112 bifilar 7,2 x 2,5 x 3,5 MINI RW 111-MINI (R.B.) RW 75-MINI + 1,8</p>	 <p>8 x 3,75 x 3,7 30 x 0,35 9,1 x 2,7 x 4,5 MINI RW 111-MINI (F.B.) RW 75-MINI + 2,0</p>	 <p>10,5 x 4 x 4,8 200 x 0,125 bifilar 11,2 x 3,1 x 5,5 MINI RW 111-MINI (R.B.) RW 75-MINI + 2,0</p>
<p>kleine Spulen mit Feindraht small coils with fine wire</p> <p>bare core size mm turns x Ø wire size mm wound coil size mm machine base roller table winding head + magazine</p>	 <p>9,5 x 4,8 x 3,2 61 x 0,18 x 37 x 0,3 1 0,8 x 2,9 x 4,6 MINI RW 111-MINI (F.B.) RW 100-MINI + 2,0</p>	 <p>13,5 x 7,8 x 2,8 580 x 0,1 14,5 x 5,5 x 4 MINI RW 111-MINI (S.S.) RW 100-MINI + 4,5</p>	 <p>16 x 4 x 8 1 layer x 0,1 16,5 x 2,9 x 9 RWE RW 111 (I.S.) RW 10 + 2,0</p>	 <p>16 x 8,5 x 6 800 x 0,3 18 x 5 x 8,9 RWE RW 111 (F.B.) RW 100-C + 2,5</p>	 <p>12 x 6 x 4,5 30 x 0,4 13 x 4,3 x 5,5 RWE RW 111 (F.B.) RW 100-C + 2,0</p>	 <p>15,5 x 9 x 5,5 17 x 0,5 bifilar 16 x 7 x 7 RWE RW 111-V RW 100 + 3,0</p>
<p>kleine Drossel und Filter mit dickem Draht small chokes and filters with heavy wire</p> <p>bare core size mm turns x Ø wire size mm wound coil size mm machine base roller table winding head + magazine</p>	 <p>13 x 7,7 x 8,5 23 x 0,8 16,8 x 4,2 x 10,5 RWE RW 111-V RW 100 + 3,0</p>	 <p>24 x 13 x 7 20 x 1,6 28,5 x 8,5 x 11,5 RWE RW 112 RW 200-V + 4,7</p>	 <p>20,5 x 12,5 x 6,5 35 x 1,15 24 x 6 x 11,5 RWE RW 112 RW 200-V + 4,2</p>	 <p>38,5 x 19,8 x 8,2 2 layer x 0,8 40,5 x 17 x 11 RWE RW 222-L RW 1 + 1/11</p>	 <p>40 x 24 x 15 11 x 1,32 trifilar 44 x 20 x 18 RWE RW 222-L RW 2 + 2/13</p>	 <p>33 x 17,5 x 11,5 100 x 1,0 39 x 9 x 18 RWE RW 112 RW 200-V + 6,3</p>
<p>kleine Drossel und Filter mit dickem Draht small chokes and filters with heavy wire</p> <p>bare core size mm turns x Ø wire size mm wound coil size mm machine base roller table winding head + magazine</p>	 <p>47 x 24 x 18,4 130 x 1,2 bank wound 55 x 9 x 28 RWE RW 222-VSO RW 300-V + 8,2</p>	 <p>38,2 x 25 x 16,4 3 sectors each 11 x 1,8 47 x 17 x 21 RWE RW 112 RW 200-VS + 7,4</p>	 <p>4 x 2,0 x 1,6 36 x 0,1 bifilar MINI RW 35-D-RO RW 111-D</p>	 <p>47 x 24 x 18,4 95 x 1,8 58 x 10 x 29 RWE RW 222-VSO RW 300-V + 8,2</p>	 <p>53 x 28 x 18 each sec. with 3 layers with bank wound x1,8 60 x 16 x 27 RWE RW 222-VSO RW 300-V + 9</p>	 <p>51 x 30 x 23,5 32 x 2,5 58 x 24 x 30,5 RWE RW 332-SO RW 3-V + 3/25</p>
<p>stromkompensierte Drossel balancing chokes</p> <p>bare core size mm turns x Ø wire size mm wound coil size mm machine base roller table winding head + magazine</p>	 <p>15,5 x 8 x 6 each sector 20 x 0,3 16,1 x 7,2 x 6,5 RWE RW 111-V (F.B.) RW 100-C + 2,5</p>	 <p>13,5 x 6 x 5,5 each sector 12 x 0,5 15 x 5 x 7 RWE RW 111-V (F.B.) RW 100-C + 2,5</p>	 <p>19 x 9 x 10 each sector 20 x 0,4 20 x 8 x 12 RWE RW 111-V RW 100-C + 4,0</p>	 <p>25 x 14 x 8 each sector 20 x 0,8 28 x 10 x 11 RWE RW 112 RW 200-V + 4,7</p>	 <p>26 x 14 x 10 each sector 9 x 1,4 30 x 10,5 x 14 RWE RW 112 RW 200-V + 5,1</p>	 <p>34,5 x 15 x 15 each sector 68 x 0,9 39 x 8,5 x 21 RWE RW 112 RW 200 + 5,0</p>
<p>kleine Sonderspulen small coils special</p> <p>bare core size mm turns x Ø wire size mm wound coil size mm machine base roller table winding head + magazine</p>	 <p>13 x 7,5 x 5 7 x 0,355 litz wire 15,3 x 6 x 6,6 RWE RW 111-V RW 100 + 3,0</p>	 <p>22,6 x 6,5 x 12 55 x 0,16 RWE RW 111-V (R.B.) RW 100-C + 2,0</p>	 <p>16,5 x 7 x 21,5 1 sector x 0,25 RWE RW 111-V (F.B.) RW 100-C + 2,5</p>	 <p>17 x 7 x 18,5 each sector 19 x 0,3 18 x 6 x 19,5 RWE RW 111-V (F.B.) RW 100-C + 2,5</p>	 <p>18 x 16 x 2,8 1 layer x 0,25 precision wound 18,8 x 14,6 x 3,5 RWE RW 222-L RW 0 + 10,0</p>	 <p>22 x 15,8 x 4 each sec. 1 layer prec. wound x 0,125 22,5 x 14,9 x 4,4 RWE Segment holder RW 0 + 10,0</p>
<p>Netztrafos power transformers</p> <p>bare core size mm turns x Ø wire size mm wound coil size mm machine base roller table winding head + magazine</p>	 <p>175 x 55 x 15,5 primary 3 layers x 0,9 180 x 48 x 21 RWE RW 222-VSO RW 30 + 30/1 6</p>	 <p>120 x 65 x 68 secondary 3 layers x 1,32 126 x 55 x 74 RWE RW 332 RW 4 + 4/50</p>	 <p>47 x 30 x 50 primary progressive/wound x 0,335 50 x 24,5 x 55 RWE RW 222-VL RW 25+14</p>	 <p>81 x 44 x 26 primary 1500 x 0,315 83 x 40 x 30 RWE RW 222-VL RW 25+14</p>	 <p>84 x 39 x 31 secondary 90 x 1,32 87 x 36 x 33 RWE RW 222-VL RW 300 + 10/K</p>	 <p>sample of power transformer View or primary winding interlayer taping with copper foil and secondary winding</p>

How to find your ideal machine

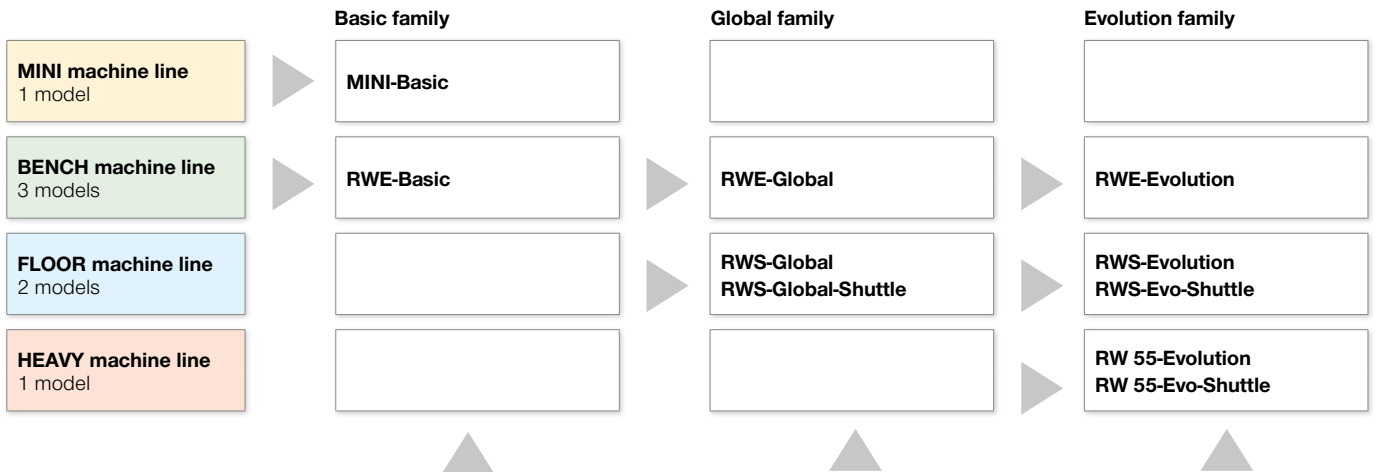
Step 1

Select the suitable machine line: RUFF offers four different machine lines and each machine line is extremely flexible with its own head and table changing system. Following graphic enables you to select the suitable machine line for your application. Please check wire range and core OD range.



Step 2

Select the suitable machine model: RUFF offers different machine families. Following overview of models enable you to select your machine. Please check the characteristics:



drives	roller tables with stepper motor winding heads with servo motor		roller tables with servo motor winding heads with motor and inverter		roller tables with servo motor winding heads with servo motor
controller	N.C. SIAX 110L		N.C. SIAX 80 monochrom touch screen		N.C. IPC EL870 touch screen
display	LCD-Display		5.7" monochrom touch screen		N.C. IPC EL870 touch screen 8" touchpanel with 4 funktion buttons, USB-connetion, ethernet interface, PS/2 interface, RJ45, serial interface language, unitext (all characters e.g. Cyrillic etc.)
programming	simple programming, user friendly controller		simple programming, user friendly controller with touch screen monitor		programming for sophisticated winding applications with industry-PC controller; clear text touch screen with graphical display and automatically winding program calculation
applications	all standard winding jobs		all standard winding jobs		all standard jobs and special resp. hi tech winding applications

Step 3

Select the suitable winding head. Following is an overview of available winding heads. Please compare your winding application with the technical specification of the heads in the RUFF product catalogue:

MINI machine line	wire 0,05 - 1,0 mm 10 heads, 5 tables						
direct, multisystem and miniature winding heads	RW 35-D direct winding head	RW 35-MINI miniature winding head	RW 45-MINI miniature winding head	RW 60-MINI miniature winding head	RW 75-MINI multisystem winding head	RW 100-MINI multisystem winding head	RW 200-MINI multisystem winding head

BENCH machine line	wire 0,05 - 2,8 mm 25 heads, 6 tables						
gear rack heads	RW 0	RW 1	RW 2	RW 3	RW 4	RW 4-V	
slider heads	RW 10	RW 20	RW 25	RW 30	RW 40	RW 40-V	
belt heads	RW 60-C	RW 100-C	RW 100	RW 200	RW 200-V	RW 300	
taping heads	RW 0/B	RW 1/B	RW 2/B	RW 3/B	RW 4/B	RW 200/B	RW 300/B

FLOOR machine line	wire 0,4 - 4,5 mm 12 heads, 9 tables						
gear rack heads	RW 33	RW 44-1	RW 44-1V	RW 45	RW 45-V	RW 45-380	RW 45-EH
taping heads	RW 33/B	RW 44/1B	RW 45/B	RW 45-380/BU			

HEAVY machine line	wire 0,8 - 6,0 mm 3 heads, 4 tables						
gear and taping rack heads	RW 55	RW 55/B	RW 55/BU				