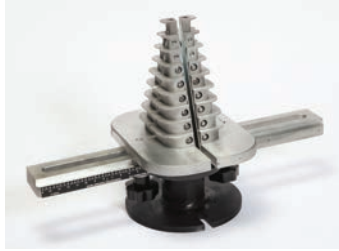


Coil Winding Fixtures and Arbors  
Wire Tensioners and De-reelers

## Coil Winding Fixtures and Arbors

- 1** Type 'U' adjustable Concentric Fixture with faceplate mounting adaptor. Designed for winding FHP-20kW stator coils. Each segment is individually adjustable with a screwdriver for different coil widths.



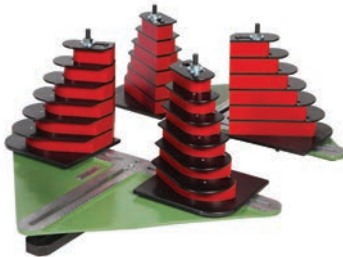
- 2** AJ1 fixture shown with type A arbors.



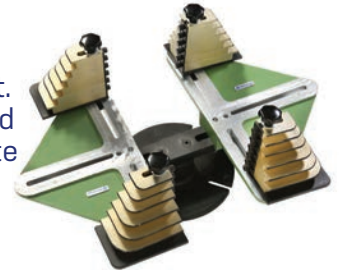
- 3** VX arbors. Each segment is individually adjustable for different coil widths via thumb screw. Available in 4 or 6 segment versions



- 4** VW6 adjustable, 6-space winding fixture mounted onto AJ2.



- 5** VX6-4 A 6-space arbor with individual segment adjustment. Shown here mounted on AJ1 with faceplate adaptor.



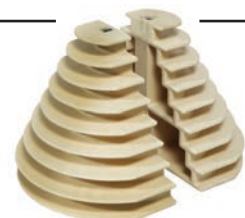
- 6** Winding Fixture Type AJ-2 Shown fitted with Type B 6-Space arbor with braces, open and closed.



- 7** PAE and PAC Winding Arbors  
Selection of concentric and equal-size plastic arbors. Five different concentric and six different equal-pitch arbors, all with 12mm square holes to fit square mandrels.



- 8** PAC8 Winding Arbors  
A pair of large arbors complete with mandrels to suit 500 and 800mm dia. Faceplates. 8 grooves, diameters 80, 120, 160, 200, 240, 280, 320 and 380mm.



# Coil Winding Fixtures and Arbors

- 9** Loop Winding fixture - type 'LW-1' suitable for a maximum loop length of 760mm. Four different models in the range for loops up to 1500mm long.



- 10** Universal Winding Support Bar. Available with faceplate, or winding shaft mounting. Supplied in three versions; 330mm; 530mm; 730mm. Versions available with different arbor shaft lengths for 1,2,3,4,5 or 6 pairs of arbors. Available with cross bars for the production of rectangular coils. See 11 (below) for suitable winding arbors.

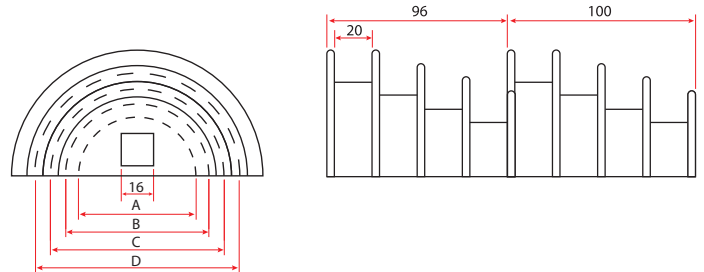


- 11** Concentric Plastic Winding Arbors for Universal Winding Support Bar.

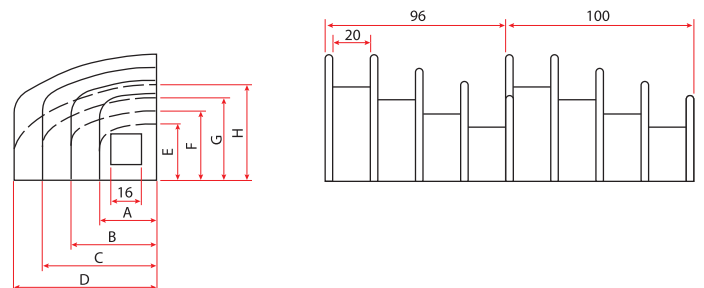
Ref	Dim. "A" [mm]	Dim. "B" [mm]	Dim. "C" [mm]	Dim. "D" [mm]
1	55	66	77	88
2	55	69	83	97
3	55	72	89	106
4	55	75	95	115
5	55	78	101	124
6	55	81	107	133
7	55	84	113	142
8	55	87	119	151
9	55	90	125	160
10	55	95	135	175
11	55	100	145	190
12	55	105	155	205
13	55	110	165	220
14	55	115	175	235

Ref	Dim. "A" [mm]	Dim. "B" [mm]	Dim. "C" [mm]	Dim. "D" [mm]	Dim. "E" [mm]	Dim. "F" [mm]	Dim. "G" [mm]	Dim. "H" [mm]
15	30	45	60	75	30	37	44	51
16	30	50	70	90	30	40	50	60
17	30	55	80	105	30	42	54	66
18	30	60	90	120	30	45	60	75

Semi-circular arbors for support bar



Quarter shape arbors for use when support bar is fitted with cross bar



# Coil Winding Fixtures and Arbors

## Coil Winding Machines

We manufacture a wide range of coil winding heads and machines suitable for the described winding fixtures and other applications.

### Universal Coil Winding Fixtures Type AJ

Rigidly constructed from steel bar and aluminium castings the AJ is adjustable for a wide range of rectangular and diamond coils. Picture 6 shows AJ fitted with 6-space aluminium arbors but it can also be provided with 12-space arbors if required. Arbors, mounted on a 16 mm diameter shaft are eccentrically bored and fitted with centring quick release lever so that when turned inwards the arbor's size is effectively reduced allowing easy coil removal (with this device you can remove the coil without dropping the arbors). 6,12,18 or 24 space arbors are available.

For concentric coil sets, type VX arbors with individual segment adjustment (see picture 3 and 5) can be fitted to the AJ-1 and Type VW (Picture 4) to the AJ-2, the type VW having a greater coil capacity.

Types AJ-1 and AJ-2 winding fixtures are available either with faceplate mounting or with a boss, which can be bored to suit the winding machine.

Type VX concentric winding fixtures are made from aluminium and are fitted with adjusting screws, so that the step between coils can be set as required. Type VW arbors are made from steel and hard wood.

### Type PAE and PAC

These PA arbors (Picture 7) are designed for winding motor coils of about 0.2-50kW, both single and 3-phase. They all have 6 apertures for winding a group of up to 6 coils and are mounted on 12mm square mandrels which are machined specially for the aluminium mounting faceplates. These faceplates are available in three sizes: 300mm diameter machined with two slots for coil side length up to 400mm; 500mm diameter machined with four slots for coils up to 600mm side length either oblong or rectangular shape; 800mm diameter machined with four slots for coils up to 900mm side length, either oblong or rectangular shape. Square mounting mandrels are available in pairs and are separately priced.

There are six different sizes of PAE arbors for winding equal pitch coils and five different sizes of stepped arbors for winding concentric coil groups. All have 6 spaces. Special versions of the faceplate are available equipped with rack and pinion quick retraction mechanism.

### Type U

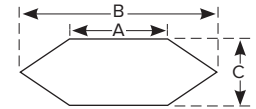
The Type U (Picture 1) winding fixture is designed for winding concentric coil groups for electric motors from about 0.1-20 kW. The fixture is fabricated totally from aluminium and is designed for mounting on a faceplate adaptor. The nine sets of segments are adjustable by screwdriver to give a very wide range of adjustments of coil step. The slot length is set by adjusting the position of the two heads with a quick release hand nut with the aid of a scale.

### Loop Winding Bars

Our range of loop winding bars are designed to cover all requirements. Four standard models are made covering loops of up to 1525 mm between pin centres. Larger models for loops of up to 3.5 m are made to order. Two robust adjustable winding pins are fitted to a rigid steel tube with a special segment locking device allowing the pins to be instantly set in position by loosening only one screw. Loop length is easily fixed by measuring from the pin centre to the central marker provided, with a steel rule. One winding pin is provided with a cam lever quick tension release device to enable easy withdrawal of the loop when wound. The second winding pin is provided with quick action cam wire clamps for the start and finish of wind and to hold wire after cutting prior to tying. Winding pins are interchangeable and have a quick release position wire retaining cap. Exchangeable pins are available for various coil radii and cross sections.

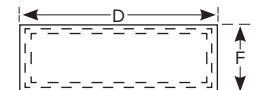
## AJ WINDING FIXTURE SPECIFICATION

### Diamond or rectangular coils



MODEL	DIMENSIONS											
	A				B				C			
	MAX.		MIN.		MAX.		MIN.		MAX.		MIN.	
	ins	mm	ins	mm	ins	mm	ins	mm	ins	mm	ins	mm
AJ-1	19	494	6	150	34	860	8	205	16	407	4	114
AJ-2	34	871	6	150	56	1413	8	205	25	632	4	114

Arbor types B, C and D require support braces and prices quoted for these are inclusive.



### Concentric Coils

MODEL	DIMENSIONS							
	D				F			
	MAX.		MIN.		MAX.		MIN.	
	ins	mm	ins	mm	ins	mm	ins	mm
AJ-1	19	494	5	127	34	860	5	127
AJ-2	34	871	6	152	56	1413	6	152

## Winding Arbors for AJ

Type	No. of Slots	Step Adjust	Depth	Width	Application
A	6	-	0.75" (19mm)	0.5" (12.5mm)	AJ-1 or 2
B	12	-	0.75" (19mm)	0.5" (12.5mm)	AJ-1 or 2
C	12	-	0.625" (16mm)	0.375" (9.5mm)	AJ-1 or 2
D	18	-	0.625" (16mm)	0.375" (9.5mm)	AJ-1 or 2
E	24	-	0.625" (16mm)	0.375" (9.5mm)	AJ-2 only
VX4-4	4	10-30mm	0.7" (18mm)	0.86" (22mm)	AJ-1 or 2
VX6-4	6	6-20mm	1.0" (25mm)	0.60" (15mm)	AJ-1 or 2
J	3	-	0.75" (19mm)	1.25" (32mm)	AJ-1 or 2
K	6	-	0.75" (19mm)	1.25" (32mm)	AJ-2 only
L	6	-	0.625" (16mm)	1" (25mm)	AJ-1 or 2
M	12	-	0.625" (16mm)	1" (25mm)	AJ-2 only
VW4	4	70-300mm	1.0" (25mm)		AJ-2
VW6	6	70-360mm	1.0" (25mm)		AJ-2

## Winding Arbors assorted

Type	No. of slots	Slot width	Slot depth	Arbor (coil) width	Step	Application
U	9	15mm	12mm	16-170mm	5-30mm adjustable	mounting bar included
PAE (equal coils)	6	15mm coils	15mm	40, 60, 80, 100, 120, 150mm (6 sizes)	none	to fit 12mm square mandrels with special faceplates 300, 500 and 800mm dia
PAC (concentric coils)	6	15mm	15mm	40-190mm	10, 15, 20, 25, 30mm (5 sizes)	

Type	No slots	Step adjust	Depth	Width	
VX6-2	6	-	0.625" (15mm)		Mounting bar

## Loops

Model	Min. Loop	Max. Loop	Min. Pin dia
LW-1/30	200mm	760mm	9.5mm
LW-1/40	200mm	1016mm	9.5mm
LW-2/50	254mm	1270mm	12.5mm
LW-2/60	254mm	1524mm	12.5mm

Larger sizes to order - all loop sizes given between pin centres.

## Wire Tensioners and De-reelers

### 12 Type FTI

Heavy duty wire de-reeler for all types of winding applications.

Can accommodate three different spools. DIN250, DIN355, DIN500 with mechanical brake and dancing arm to control the wire tension.



### 13 Type WR

Simple and robust unit. Ideal for electric motor coil winding applications.

Designed to hold three reels of wire up to 300 mm diameter, thereby allowing three wires to be wound in parallel. The spindles are provided with a simple spring loaded friction brake. Single spindle versions also available.



### 14 Type FTD

Heavy duty de-reeler for wire or strip. Available with hand-adjusted permanent friction brake or pneumatically operated disc brake.

Max. reel dia. 600 mm  
Spindle dia. 30 mm



### 15 Type FTB

This type is made in three sizes for 1, 2 or 3 spindles. Type shown is FTB-3. Each spindle is fitted with a reel drive peg and adjustable friction brake. Max reel weight per shaft: 140Kg. Max reel dimensions 650mm dia x 300mm wide. Also available with pneumatic brake.



### 16 Type 12 THT

Heavy duty tensioner fitted to a free running saddle which automatically follows the line of the strip as it is being wound on the transformer.

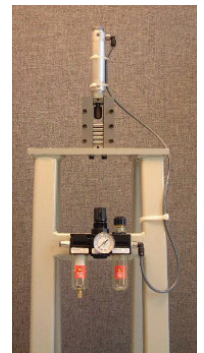
Traverse widths up to 1000mm



### 17 Type PW-8T/8TSP

Powerful tensioner for giving constant tension to wire or strip. Pneumatic cylinder tensions hard wood pads between which the wire passes. Tensions 4 strips up to 15 mm wide or 8 strips up to 8 mm wide. Larger versions available. Ideal for high and constant tension with transformers or high voltage electric motor loops.

Tensioner can be mounted onto a stand as 8TSP shown in photo.



## Wire Tensioners and De-reelers

- 18** Type ST-6  
Designed to take 6 x reels up to 180mm flange diameter with overhead take-off and tensioning device for winding up to 6 wires in parallel. Can be stacked to give 12 reel capacity.



- 19** Wire storage and dispensing shelf  
For the storage and feeding of wire. Especially useful for automatic coil winding machines. Different versions available to suit different DIN configurations.



- 20** Type TI  
This de-reeler is for use with wire drums, containers or large type V reels. It has a spring tensioned felt pad and an adjustable braked capstan wheel. Compact - can be mounted in multiples.  
Wire range 0.5 - 2.0mm.



- 21** Type TGS  
Heavy duty de-reeler for all types of winding application.  
Wire range 0.30 - 3.50 mm  
Max. reel dia. 500 mm  
Max. reel width 200 mm  
Spindle dia. 20 mm  
  
Dual tension system with internal shoe brake.  
Very good tension control.



- 22** Type TNR  
Wire range 0.20 - 1.50 mm  
Dual tension adjustment.  
Spindle dia. 12 mm  
Max. reel dia. 400 mm  
Max. reel width 200 mm  
Can be mounted singly or in multiples.



TYPE TNR/R  
As type TNR except wire range 0.30 - 2.00 mm.

- 23** Type TC/R  
Wire range 0.20 - 1.00 mm  
Max. reel dia. 200 mm  
Very fine tension adjustment.  
Reel container sizes:  
180 mm dia. for reels DIN 160  
200 mm dia. for reels DIN 180  
220 mm dia. for reels DIN 200

Type TC  
Similar to TC/R but for thinner wires.  
Wire range 0.05 - 0.20 mm  
Max. reel dia. 200 mm  
May be used with any of the three container sizes listed.

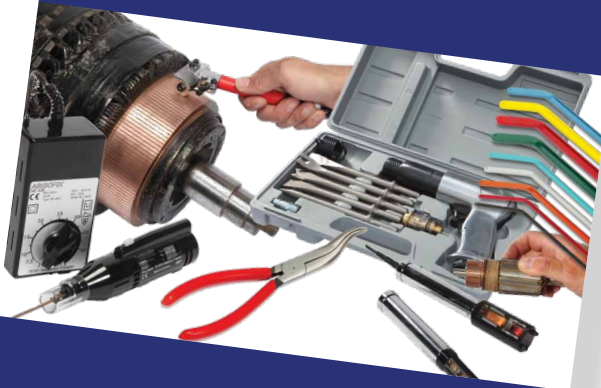


- 24** Type TN  
Wire range 0.10 - 0.40 mm  
Spindle dia. 10 mm  
Max. reel dia. 300 mm  
Max. reel width 150 mm

Fine wire de-reeler with excellent tension control - may be mounted singly or in multiples (as shown).



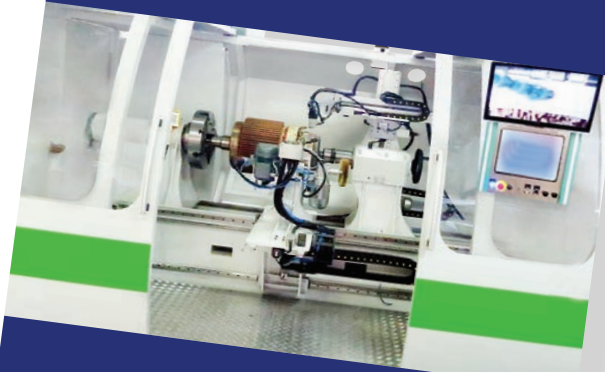
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### Hand Tools and Accessories for Electric Motor Repair

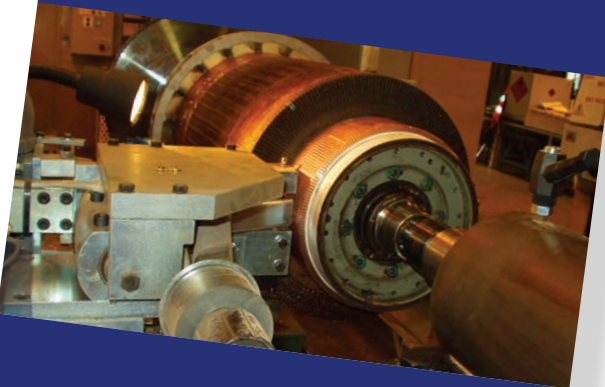


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### DC/Traction Motor Processing Equipment

 Whitelegg



### Electric Motor Repair Equipment



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### Electric Motor Testing



[www.whitelegg.com](http://www.whitelegg.com)