

INSTRUCTION FOR USING NO. 51 AND NO. 53 TYPES OF *NICOPRESS*[®] TOOLS

Each sleeve-pressing die groove is designated by a letter with these tools. This letter is die-stamped in the tool head immediately adjacent to the die-groove to which it applies. The tools covered by this instruction are available in the following die-groove combinations:

No. 53-XPJ, No. 53-XMJ, No. 53-TMJ, No. 41-MJ, No. 51-MJ, No. 51-PJ, No. 51-TJ, No. 51-TM, No. 51-XJ

These *Nicopress*[®] tools are used for splicing, dead-ending, and tapping-off electrical conductors with the devices listed in the following tables. The devices are grouped according to the tool die-groove that is used to apply them. Thus, all devices that are compressed in an "X" die-groove are listed together. The same applies to the other die-grooves. A tool is used to compress the devices listed for the die-grooves in that particular tool. Thus, No. 51-XJ tool will apply all of the devices listed for the "X" die-groove and for the "J" die-groove. Use of the other tools is determined in the same manner.

SPLICING LINE WIRE with *NICOPRESS*[®] SPLICING SLEEVES

Before making a splice BE SURE TO CLEAN THE WIRE. It is necessary that NEW as well as OLD wire be thoroughly cleaned in order to assure that the splice will have good conductivity. Abrasive paper or cloth does a good cleaning job.

Push wires into sleeve until they strike the center stop for line splicing. Do not twist the wire if it does not go all the way to the stop. Remove the wire, straighten it, and clear burrs from the cut end, then push the wire STRAIGHT into the sleeve.

Always make the presses at each side of the center first. This insures that the wire is held all the way in the sleeve.



Continue making presses, working out towards the ends, until the ENTIRE sleeve is pressed including the tapered portion (if any). There should not be more than 1/8" space between presses.

Rotating the tool 180° around the sleeve between compressions or between groups of compressions keeps the sleeves relatively straight.

The finished splice should have 1/16" to 1/8" of unpressed sleeve at each end. Do not make a press over the center of the sleeve.

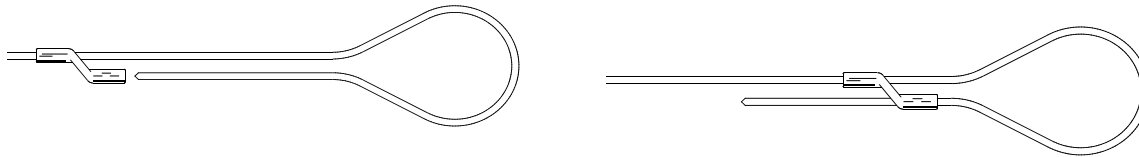


DEAD-ENDING LINE WIRE with *NICOPRESS*[®] OFFSET DEAD-END SLEEVES

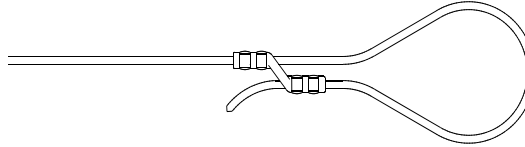
Line wires can be terminated or dead-ended on pin type, spool or strain insulators by using *Nicopress*[®] Offset Dead-End Sleeves. These sleeves are compressed with the same tool used on the splicing sleeves.

Pass a sufficient length of the line wire through either end of a dead-end sleeve to form a loop. Push through as much conductor as needed if a jumper or tail is required.

Bend the protruding wire around the insulator, then bring line and tail parallel so the dead-end sleeve can be pushed up on both wires at the same time. (See illustration on next page.)



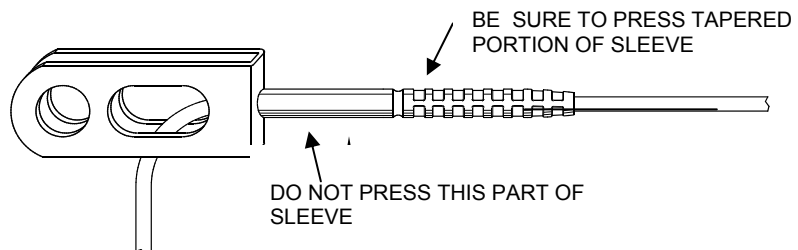
Push sleeve to proper position.
Then make the exact number of presses specified in the table.
Keep the presses centered, away from the ends and away from the bent part of the sleeve.



DEAD-ENDING with **NICOPRESS®** SUSPENSION DEAD-ENDS

When making *Nicopress®* Suspension Dead-Ends, push enough of the conductor through the sleeve to provide for a tail or tap-off.

After proper sag has been obtained, press the sleeve close to the grooved portion with the *Nicopress®* Tool. Continue to make presses clear to the end of the sleeve including the tapered portion. Leave about 1/8" between presses.

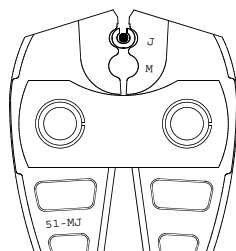


The clevis end of the sleeve should not be pressed. This extra length provides against damage from vibration fatigue. Make sure sleeve is straight after pressing. Avoid damage to the conductor by using an anvil should hammering be necessary. Also make sure to press the tapered portion even though presses are not as deep.

Nicopress® Suspension Dead-Ends have a zinc washer under the head of the sleeve. Do not remove this washer. The fiber washer used to hold sleeve in clevis during shipment may be removed.

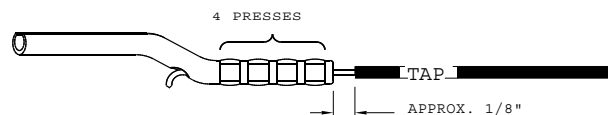
Nicopress® loop-type dead-ends are applied in a manner similar to the suspension dead-ends except that the wire cannot be pushed through the sleeve to provide a tail or tap-off.

NICOTAP® SLEEVES

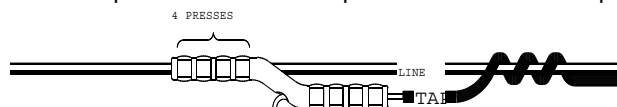


Before making a tap, BE SURE TO CLEAN THE WIRES. To assure that the tap will have a good conductivity, it is necessary that both the LINE wire and the TAP wire are thoroughly cleaned where the *Nicotap* Sleeve is to be installed. Abrasive paper or cloth does a cleaning good job. Cleaning is required for both new and old wire.

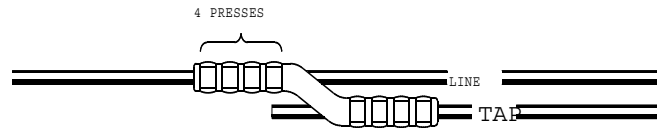
Hold the tool so the open end of the *Nicotap* lines up with the open end of the tool.



Always attach the *Nicotap®* sleeve to the tap-wire first. The last operation is to attach the partly finished *Nicotap®* to the wire.



If tap-wire is insulated, wrap it two or three turns around the line wire before attaching the line end of the *Nicotap®*.



It is always advisable to tape the splice, even on bare wire to bare wire. This keeps the splices clean and reduces the vibration strains.

SPLIT REPAIR SLEEVES FOR COPPERWELD®-COPPER CONDUCTORS

Before installing a Repair Sleeve, BE SURE TO THOROUGHLY CLEAN THE WIRE in the area that the Repair Sleeve will contact. Abrasive paper or cloth does a good job cleaning job. This cleaning is required for both new and old wire.

These sleeves are split their entire length. After cleaning the wire, center the sleeve over the cable damage. Begin pressing the sleeve at one end and continue to the other end using the specified tool groove. Hold the tool so the open end of the jaw and the sleeve slot are on the same side. Leave approximately 3/32" between presses, and at each end of the sleeve.

ADJUSTMENT OF *NICOPRESS*® TOOL

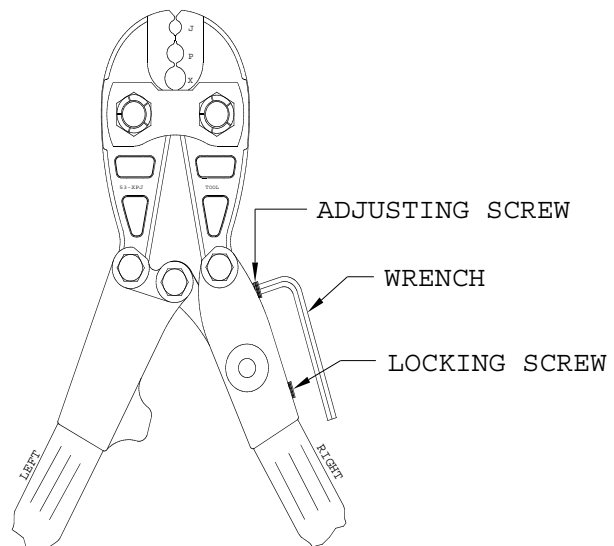
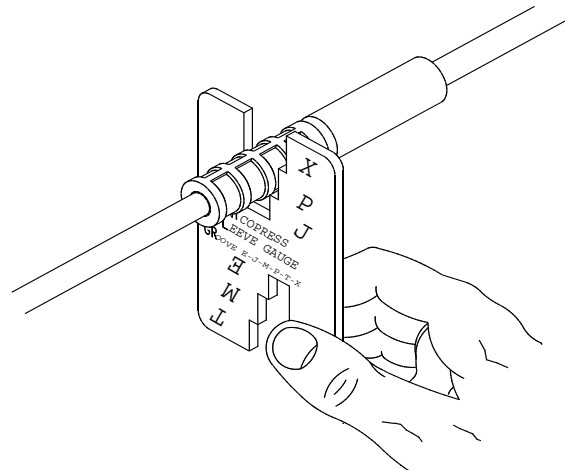
To make a satisfactory splice, it is important that the proper press diameter be maintained. This should be checked periodically with the gauge provided for this purpose.

When using the gauge it should be held so that it contacts the compressed portion of the sleeve at right angles to the fins.

The compressed portion of the splice should enter the gauge opening easily. If it does not, adjust the tool.

With the tool handles in the open position, use the wrench provided with the tool to loosen the locking screw one or two turns. Then turn the adjustment screw clockwise only a fraction of a turn. Make a press and check with the gauge. Continue adjustment if necessary, until press passes easily into gauge. When the correct setting is obtained, tighten the locking screw hard so that tool will hold its adjustment.

In addition to checking and adjusting, tools should be cleaned and oiled. An empty tool should work freely with a slight spring at the final closing. If the tool binds, it can be eased by slightly loosening the particular bolt which is causing the binding.



SLEEVE TABLES

The following tables list the devices that are compressed with the tools covered in the instruction. The devices are grouped in accordance with the tool die-grooves that are required to compress them. Thus, all of the devices compressed in a "J" die-groove are listed under the heading "J Die-Groove Devices". Any tool having a "J" die-groove will compress all of these sleeves. The other die-grooves, "M", "P", etc. are arranged in the same way.

The numbers in parentheses following the stock numbers of the various devices are not part of the stock numbers. They designate the numbers of tool compressions required. In the case of straight splicing sleeves, these numbers give the compressions per sleeve half. In the case of Offset Dead-Ends and *Nicotap*® Sleeves, these numbers give the compressions per leg of the devices. In the case of Suspension Dead-Ends, they designate the total compressions that are to be made on the sleeves.

"J" DIE-GROOVE DEVICES

LINE CONDUCTORS		STRAIGHT SPlicing SLEEVE	OFFSET DEAD-END SLEEVE	LOOP TYPE DEAD-END	TAP or TAIL CONDUCTORS		NICOTAP® SLEEVES	REDUCING SLEEVES
MATERIAL	WIRE SIZE				A.W.G.	B.W.G.		
ALUMINUM	8 A.W.G.-SOL	AL-8 SOL-J (3)						
	6 A.W.G.-SOL	AL-6 SOL-J (4)						
	6 A.W.G.-STR	AL-6 STR-J (4)						
ALUMINUM COVERED STEEL	10 A.W.G.-SOL	8-102-J (6)		68-102-J (6)				
	9 A.W.G.-SOL	8-114-J (6)						
COPPER	10 A.W.G.-SOL	1-102-J (4)	91-102-J (3)					
	9 A.W.G.-SOL	1-114-J (4)	91-114-J (3)					
	8 A.W.G. SOL	1-128-J (3)	91-128-J (3)					
	8 A.W.G.-STR	1-128/7-J (3)	91-128/7-J (3)		10			1-128/7 x 102-J (4)
					9			1-128/7 x 114-J (4)
					8			1-128/7 x 128-J (3)
	7 A.W.G.-SOL	1-144-J (4)						
	6 A.W.G.-SOL	1-162-J (4)	91-162-J (3)	71-162-J (7)*	8 STR			1-162 x 128/7-J (3)
6 A.W.G. STR	1-162/7-J (4)	91-162/7-J (3)		8 STR	1-162/7 x 128/7-J (3)			
COPPER OR COPPER- COVERED STEEL	10 A.W.G.-SOL	1-102-J (4)	91-102-J (3)		12			1-102 x 080-J (3)
	9 A.W.G.-SOL	1-114-J (4)	91-114-J (3)		10			1-114 x 102-J (4)
	8 A.W.G.-SOL				8		T1-128-J (4)	
					10		T1-128 x 102-J (4)	
					9		T1-128 x 114-J (4)	
	6 A.W.G.-SOL				6		T1-162-J (4)	
					8-STR			
					8		T1-162 x 128-J (4)	
					9		T1-162 x 114-J (4)	
					10		T1-162 x 102-J (4)	
	6 A.W.G.-STR				6			1-162/7 x 162-J (4)
					8			1-162/7 x 128-J (3)
					9			1-162/7 x 114-J (4)
					10			1-162/7 x 102-J (4)
COPPER- COVERED STEEL	10 A.W.G.-SOL	1-102-J (4)	91-102-J (3)					
	9 A.W.G.-SOL	1-114-J (4)	91-114-J (3)					
	8 A.W.G.-SOL	3-128-J (4)						
GALVANIZED STEEL BB GRADE	8 B.W.G.-SOL	2-165-J (4)	92-165-J (3)			8	T2-165-J (4)	
					12		T2-165 x 080-J (4)	

*SUSPENSION DEAD-END SLEEVE

"M" DIE-GROOVE DEVICES

LINE CONDUCTORS		STRAIGHT SPLICING SLEEVE	OFFSET DEAD-END SLEEVE	SUSPENSION DEAD-END	TAIL CONDUCTORS A.W.G.	REDUCING SLEEVES
MATERIAL	WIRE SIZE					
ALUMINUM	4 A.W.G.-SOL.	AL-4 SOL-M (5)				
	4 A.W.G.-STR.	AL-4-STR-M (6)				
ACSR	6-6/1	661-M (16)				
COPPER	6 A.W.G.-3 STR.	1-204-M (5)	91-204-M (3)	71-204-M (8)		
	6 A.W.G.-SOL.	1-162-M (4)	91-162-M (4)			
	4 A.W.G.-SOL.	1-204-M (5)	91-204-M (3)	71-204-M (8)		
	4 A.W.G.-STR.	1-204/7-M (5)	91-204/7-M (4)	71-204/7-M (7)		
COPPER OR COPPER COVERED STEEL	6 A.W.G.-SOL.				8 SOL.	1-162 x 128-M (5)
	4 A.W.G.-SOL.				8 SOL.	1-204 x 128-M (5)
					6 SOL.	1-204 x 162-M (4)
					6 SOL.	1-204/7 x 162-M (4)
	4 A.W.G.-STR.				4 SOL.	1-204/7 x 204-M (5)
COPPERWELD COPPER	8C, 9-1/2D	1-3/081-M (5)	91-3/081-M (4)	71-3/081-M (7)		
	8A	1-8A-M (8)		71-8A-M (9)		
COPPER- COVERED STEEL	8 A.W.G.-SOL.	1-128-M (5)	91-128-M (4)	71-128-M (8)		
	3 No.12 A.W.G.	1-3/081-M (5)	91-3/081-M (4)	71-3/081-M (7)		
	7 A.W.G.	1-144-M (5)				
GALVANIZED STEEL	7 B.W.G.-SOL.	2-180-M (5)				
	6 B.W.G.-SOL.	2-203-M (5)	92-203-M (4)		10 SOL.	2-203 x 102-M (4)
8 SOL.					2-203 x 128-M (4)	

"T" DIE-GROOVE DEVICES

LINE CONDUCTORS		STRAIGHT SPLICING SLEEVE	OFFSET DEAD-END SLEEVE	SUSPENSION DEAD-END	TAIL CONDUCTORS A.W.G.	REDUCING SLEEVES
MATERIAL	WIRE SIZE					
COPPER	3 A.W.G.-SOL.	1-229 -T (5)				
	2 A.W.G.-SOL.	1-258-T (5)	91-258-T (6)	71-258-T (7)		
	2 A.W.G.-STR.	1-258/7-T (5)		71-258/7-T (8)	6 SOL.	1-258/7 x 162-T (5)
					6 STR.	1-258/7 x 162/7-T (5)
					4 STR.	1-258/7 x 204-T (5)
COPPER OR COPPER- COVERED STEEL	2 A.W.G.-SOL.				4 SOL.	1-258 x 204-T (5)
					3 SOL.	1-258 x 229-T (5)

"P" DIE-GROOVE DEVICES

LINE CONDUCTORS		STRAIGHT SPLICING SLEEVE	OFFSET DEAD-END SLEEVE	SUSPENSION DEAD-END	TAP OR TAIL CONDUCTORS		NICOTAP® SLEEVES	REDUCING SLEEVES
MATERIAL	WIRE SIZE				A.W.G.	B.W.G.		
ALUMINUM	4 A.W.G.-SOL.	AL-4 SOL-P (5)						
	4 A.W.G.-STR.	AL-4 STR-P (5)						
ALUMINUM COVERED STEEL	8 A.W.G.-SOL.	8-128-P (6)						
	6 A.W.G.-SOL.	8-162-P (9)						
ACSR	6-6/1	661-P (17)						
	6-6/1	1706-P (6)	THIS IS A PARTIAL TENSION SLEEVE, TYPICAL 600-LBS. TENSION.					
	4-6/1	1704-P (6)	THIS IS A PARTIAL TENSION SLEEVE, TYPICAL 900-LBS. TENSION.					
COPPER	6 A.W.G.-3 STR.	1-204-P (4)		71-204-P (6)				
	4 A.W.G.-SOL.	1-204-P (4)	91-204-P (4)	71-204-P (6)			T1-204-P (4)	
	4 A.W.G.-STR.	1-204/7-P (5)	91-204/7-P (4)		6-STR 4-STR			1-204/7 x 162/7-P (5)
	3 A.W.G.-SOL.	1-229-P (5)	91-229-P (4)					
	3 No. 10 A.W.G.	1-3/102-P (5)						
COPPER OR COPPER- COVERED STEEL	6 A.W.G.-SOL.					8 SOL.		1-162 x 128-P (5)
	4 A.W.G.-SOL.					8 SOL.	T1-204 x 128-P (4)	1-204 x 128-P (5)
						6 SOL.	T1-204 x 162-P (4)	1-204 x 162-P (5)
						4 SOL.	T1-204-P (4)	
						8 SOL.	T1-204/7 x 128-P (4)	1-204/7 x 128-P (5)
						6 SOL.	T1-204/7 x 162-P (4)	1-204/7 x 162-P (5)
	5 SOL.		1-204/7 x 182-P (6)					
4 SOL.	T1-204/7-P (4)	1-204/7 x 204-P (5)						
COPPER- COVERED STEEL	8 A.W.G.-SOL.	1-128-P (5)	91-128-P (5)	71-128-P (8)				
	7 A.W.G.-SOL.	1-144-P (5)						
	6 A.W.G.-SOL.	1-162-P (5)	91-162-P (4)	71-162-P (8)				
	3 No. 12 A.W.G.	1-3/081-P (6)	91-3/081-P (6)	71-3/081-P (8)				
	3 No. 10 A.W.G.	3-3/102-P (10)	93-3/102-P (7)					
COPPERWELD COPPER	8C, 9-1/2D	1-3/081-P (6)	91-3/081-P (6)	71-3/081-P (8)				
	8A	1-8A-P (8)	91-8A-P (6)	71-8A-P (9)				
	8D	3-8D-P (8)	93-8D-P (7)	73-8D-P (12)				
	7A	1-7A-P (10)						
	6A-6C	1-6A-P (9)	91-6A-P (7)	71-6A-P (11)				
GALVANIZED STEEL	6 B.W.G.-SOL.	2-203-P (5)						

**"P" DIE-GROOVE
SPLIT REPAIR SLEEVES**

LINE CONDUCTORS		SPLIT REPAIR SLEEVE
MATERIAL	WIRE SIZE	
COPPER- COVERED STEEL	3 No. 12 A.W.G.	R1-3/081-P (7)
	8A	R1-8A-P (7)
	7A	R1-6A-P (7)
	6A	R1-6A-P (7)
	8C	R1-3/081-P (7)
	6C	R1-6A-P (7)
	9-1/2D	R1-3/081-P (7)
	8D	R1-6A-P (7)
ACSR, AAAC, 5005, 6201	6-6/1	AR-6-5-APPLE (10)
	5-6/1	

()=PRESSES PER HALF
DO NOT OVERLAP PRESSES

"X" DIE-GROOVE DEVICES

LINE CONDUCTORS		STRAIGHT SPLICING SLEEVE	OFFSET DEAD-END SLEEVE	SUSPENSION DEAD-END	TAIL CONDUCTORS A.W.G.	REDUCING SLEEVES	
MATERIAL	WIRE SIZE						
ALUMINUM	4 A.W.G.-SOL.	AL-4 SOL-X (5)	THIS IS A PARTIAL TENSION "JUMPER" SLEEVE.				
	4 A.W.G.-STR.	AL-4 STR-X (5)					
	2 A.W.G.-SOL.	AL-2 SOL-X (6)					
	2 A.W.G.-STR.	AL-2 STR-X (6)					
		JU-2-STR-AL-X (4)					
ACSR	2-6/1	1702-X (6)	THIS IS A PARTIAL TENSION SLEEVE, TYPICAL 1000 LBS. TENSION.				
COPPER	4 A.W.G.-SOL.	1-204-X 2-1/2" (5)	91-204-X (5)	71-204-X (10)			
	4 A.W.G.-STR.	1-204/7-X (5)					
	2 A.W.G.-SOL.	1-258-X (5)	91-258-X (5)	71-258-X (9)			
	2 A.W.G.-STR.	1-258/7-X (5)	91-258/7-X (6)	71-258/7-X (9)	6 STR.	1-258/7 x 162/7-X (7)	
	1 A.W.G.-7 STR.	1-258/3-X (7)	91-258/3-X (5)	71-258/3-X (8)	4 STR.	1-258/7 x 204/7-X (4)	
	2 A.W.G.-3 STR.	1-258/3-X (7)	91-258/3-X (5)	71-258/3-X (8)	6 STR.	1-258/3 x 162/7-X (7)	
	1 A.W.G.-SOL.	1-289-X (5)			4 STR.	1-258/3 x 204/7-X (4)	
	3 A.W.G.-3 STR.	1-289-X (5)			2 STR.	1-258/3 x 258/7-X (5)	
	1 A.W.G.-7 STR.	-----			2-3 STR.	1-258/3-X (7)	
	3 No. 8 A.W.G.	1-3/128-X (6)					
	3 A.W.G.-7 STR.	1-3/128-X (6)					
	4 A.W.G.-3 STR.	1-258-X (5)	91-258-X (5)	71-258-X (9)			
	COPPER OR COPPER- COVERED STEEL	4 A.W.G.-SOL.				6 SOL.	1-204 x 162-X (7)
		2 A.W.G.-SOL.				6 SOL.	1-258 x 162-X (7)
4 SOL.						1-258 x 204-X (4)	
4 STR.						1-258 x 204/7-X (4)	
6 SOL.						1-258/7 x 162-X (7)	
2 A.W.G.-STR.					5 SOL.	1-258/7 x 182-X (7)	
					4 SOL.	1-258/7 x 204-X (4)	
					2 SOL.	1-258/7 x 258-X (5)	
2 A.W.G.-3 STR.					6 SOL.	1-258/3 x 162-X (7)	
1 A.W.G.-7 STR.					4 SOL.	1-258/3 x 204-X (4)	
1 A.W.G.-STR.				2 SOL.	1-258/3 x 258-X (5)		
				5 SOL.	1-289/7 x 182-X (7)		
COPPER- COVERED STEEL	3 No. 10 A.W.G.	1-3/102-X (8)					
	3 No. 9 A.W.G.	1-3/114-X (8)					
	4 A.W.G.-SOL.	1-204-X (8)					
COPPERWELD COPPER	8A	1-8A-X (11)					
	6A-6C	1-6A-X (11)					91-6A-X (7)
	6D	3-6D-X (11)					93-6D-X (11)
	4A	1-4A-X (11)	91-4A-X (8)	71-4A-X (12)			
	5A	1-5A-X (11)					

**"X" DIE-GROOVE
SPLIT REPAIR SLEEVES**

LINE CONDUCTORS		SPLIT REPAIR SLEEVE
MATERIAL	WIRE SIZE	
COPPER- COVERED STEEL	4A	R1-4A-X (11)

()=PRESSES PER HALF
DO NOT OVERLAP PRESSES

