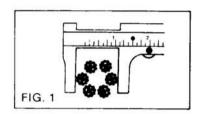


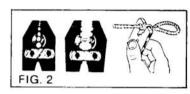


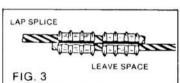
WARNING

PROPER MINIMUM STRENGTH OF THE OVAL & STOP SLEEVE TERMINATIONS CAN ONLY BE ATTAINED WHEN CERTAIN CRITERIA ARE MET.

- #1. Proper measurement of the new wire rope (See Figure #1) is required to assure it meets proper diameter in accordance with its applicable specification.
- #2. Swaging is accomplished on bare wire rope. If plastic coated wire rope is used, remove plastic coating as required.
- #3. Proper maximum after-swage dimension is produced and verified by using a go/no-go gauge or precision measuring instrument. (See figure #2 and charts below)
- #4. The dead end of the wire rope must protrude up to 1/16" from the end of the swaged sleeve.
- #5. The following results can only be attained with one sleeve when used on 3x7, 7x7, 7x19, 6x19 & 6x37 construction wire rope. 1x7 & 1x19 wire rope requires two (2) sleeves, as does lap splicing (See figure #3).
- #6. Employ a minimum 5 to 1 safety factor using new wire rope minimum breaking strength to the actual working load of your application. Where human life or shock loading is involved, this safety factor must be increased. Consult U.S. Rigging Supply Corp. or another rigging expert.
- #7. Proper testing and/or proof loading is recommended.



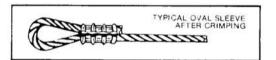




COPPER & ALUMINUM OVAL SLEEVES

CHART A





Copper & aluminum oval sleeves can only be expected to hold 90% of the minimum breaking strength of new wire rope when swaged to the maximum after-swage dimensions listed below.

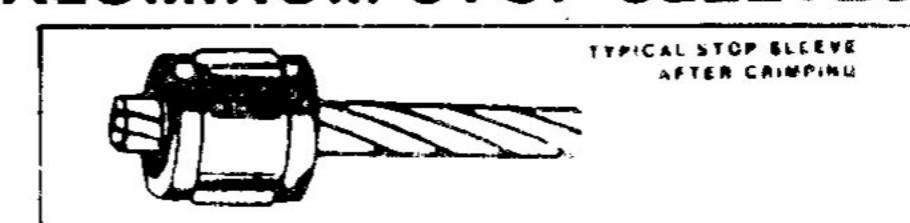
| Wire Rope Dia./ Oval Sleeve Size | Swager Cavity # 1 Go/No-go gauge cavity # | Maximum After-Swage Dimension Plus .000" & Minus .010" | Number of Hand or Bench Compressions Required |
|-------------------------------------|----------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------|
| 1/32" | -1 or 1/32" | .070'' | 1 |
| 3/64" | -1.5 or 3/64" | .150'' | 1 |
| 1/16" | -2 or 1/16" | 185 * | 2 |
| 3/32" | -3 or 3/32" | .265'' | 2 |
| 1/8" | -4 or 1/8" | .350'' | 3 |
| 5/32" | -5 or 5/32" | .395" | 3 |
| 3/16" | -6 or 3/16" | .475'' | 4 |
| 7/32" | -7 or 7/32" | .530'' | 4 |
| 1/4" | -8 or 1/4" | .580`` | 4 |
| 5/16" | -10 or 5/16" | .735" | 4-Aluminum 5-Copper |
| 3/8" | -12 or 3/8" | .802'' | Not Recommended |
| 7/16" | -14 or 7/16" | 1.022" | Not Recommended |
| 1/2" | -16 or 1/2" | 1.202" | Not Recommended |



COPPER & ALUMINUM STOP SLEEVES

CHART B

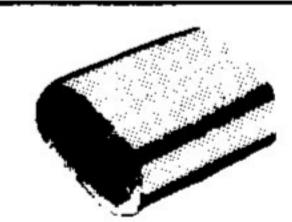




Copper & aluminum stop sleeves can only be expected to hold 40% to 50% of the minimum breaking strength of new wire rope when swaged to the maximum after-swage dimensions listed_below.

| Wire Rope Dia./ stop sleeves Size | Swager Cavity # 1 Go/No-go gauge cavity # | Maximum After-Swage Dimension Plus .000" & Minus .010" | Number of Hand or Bench Compressions Required |
|--------------------------------------|----------------------------------------------|--------------------------------------------------------|-----------------------------------------------------|
| 1/32'' | -1 or 1/32" | .070" | 1 |
| 3/64" | -1.5 or 3/64" | .150" | 1 |
| 1/16" | -2 or 1/16" | .185" | 1 |
| 3/32" | -3 or 3/32" | .265" | 2 |
| 1/8" | -3 or 3/32" | .265" | 2 |
| 5/32" | -4 or 1/8" | .350" | 2 |
| 3/16" | -4 or 1/8" | .350" | 2 |
| 7/32" | -4 or 1/8" | .350" | 2 |
| 1/4" | Not Applicable | .460" | 3 |
| 5/16" | Not Applicable | .460" | 3 |

CHART C



STAINLESS STEEL OVAL SLEEVES

Stainless steel oval sleeves are not recommended for use in a hand or bench swager. Due to their hardness requirements, pressures that are required to attain proper maximum after-swage dimensions generally cannot be produced by hand or bench swagers. High tonnage mechanical, hydraulic, or pneumatic swaging is required. Stainless steel sleeves require a full-length swage. Several full-length die compressions may be necessary to obtain proper after-swage dimension. Stainless steel oval sleeves can only be expected to hold 90% of the minimum breaking strength of new wire rope when swaged to the maximum after-swage dimensions used below.

| Wire Rope Dia./ Oval Sleeve Size | Swager Cavity # 1 Go/No-go gauge cavity # | Maximum After-Swage Dimension Plus .000" & Minus .010" |
|-------------------------------------|----------------------------------------------|--------------------------------------------------------------|
| 3/64" | -1.5 or 3/64" | .150" |
| 1/16" | -1.5 or 3/64" | .150" |
| 3/32" | -2 or 1/16" | .185" |
| 1/8" | -3 or 3/32" | .265" |
| 5/32" | -4 or 1/8" | .350" |
| 3/16" | -5 or 5/32" | .395" |
| 1/4" | -7 or 7/32" | .530" |

THE MAXIMUM AFTER-SWAGE DIMENSIONS CANNOT BE ATTAIN

IF THE MAXIMUM AFTER-SWAGE DIMENSIONS CANNOT BE ATTAINED BY USE OF YOUR SWAGER, EITHER TOOL ADJUSTMENT OR TOOLING REWORK IS INDICATED. CORRECTIVE ACTION MUST BE TAKEN TO ASSURE THAT PROPER MAXIMUM AFTER-SWAGE DIMENSIONS ARE ATTAINED.

PLEASE EXERCISE EXTREME CAUTION.

If you are unsure of proper use in regard to the above listed wire rope terminations, please contact U.S. Rigging Supply Corp. or another rigging expert.

NOTE:

U.S Rigging Supply Corp. sleeves are engineered for use with U.S Rigging Supply Corp. tools. If a U.S Rigging Supply Corp. tool is not used, be sure that the maximum after-swage dimensions are adhered to. U.S Rigging Supply Corp. copper & stainless steel oval sleeves meet the requirements of MS51844 & are used as a basis for this specification.

DISCLAIMER OF WARRANTIES

EXCEPT FOR THE LIMITED WARRANTY SET FORTH IN U.S RIGGING SUPPLY CORP.'S BROCHURES, AND DOCUMENTS EVIDENCING THE PURCHASE OF GOODS BY THE PURCHASER, NO WARRANTY IS TO BE CONSTRUED AS HAVING BEEN MADE BY THE INFORMATION SET OUT ABOVE. U.S. RIGGING SUPPLY CORP. FURNISHES THE INFORMATION AS AN ACCOMMODATION AND NOT AS A REPRESENTATION UPON WHICH THE PURCHASER RELIES IN PURCHASING THE GOODS OR RELIES AS BEING AN EXPRESS WARRANTY OF THE CAPACITIES OR CAPABILITIES OF THE GOODS. ALTHOUGH THE ABOVE WARNINGS AND SPECIFICATIONS MAY BE USED AS A GUIDE, THE PURCHASER ACKNOWLEDGES THAT THE SOLE RESPONSIBILITY FOR THE USE AND PERFORMANCE OF THE GOODS LIES WITH PURCHASER.