

After Swage Inspection Procedures

⚠ WARNING

- Read, understand, and follow these instructions before using the National QUIC-PASS® Swaging System.
- Improper after swage dimensions can result in sling failure resulting in property damage, serious injury or death.
- Always gauge or measure the after swage dimensions to ensure proper sling performance.
- Using National Swaging System with ropes and termination styles other than shown in these procedures may reduce the performance of the termination and lead to premature failure.
- When using rope constructions other than shown in this procedure, the termination must be destructive tested and documented to prove adequacy of the assembly to be manufactured.
- The QUIC-PASS® Swaging System is designed only for “Flemish Eye” terminations using National S-505 Standard Steel Sleeves.
- The QUIC-PASS® Swaging System is not designed for Cable-Laid wire rope slings or fiber core wire rope.

Checking Swaging Dimensions

One of the important considerations in producing a quality termination is the overall diameter of the fitting after the swaging process is complete. Since all dies wear, and the swaged fitting used in terminations have spring back, the results of swaging should be checked periodically to determine the wear condition of the die as well as to ensure the fitting is swaged to proper dimensions.

Key Facts About After Swage Dimensions:

1. In addition to worn dies, not achieving the proper after swage dimension can also be due to the die not being fully closed during swaging. Dies showing excessive wear should be replaced.
2. The effective swaging that dies can accomplish stops when the die lands touch each other. Any continued swaging adds needless wear and strain on the dies and swaging machine.
3. By placing a light oil on the die faces and in the cavity, the dies will be lubricated as well as protected.
4. The oozing of the oil from the faces of the dies as they touch will indicate when the dies have closed. At this point, stop the swaging cycle.
5. Additional swaging adds needless wear and strain to the dies and swaging machine.
6. Never use dies that are cracked, worn or abraded (galled).
7. The Crosby Group does not recommend the checking of die dimensions as an acceptable method of determining the quality of a swage sleeve, button, ferrule, or socket.
8. It is our recommendation that the checking of the after swage dimension of the swaged fitting is the most accurate indicator of a properly swaged termination. Measuring the die cavity only is not an acceptable process control check.
9. If the die cavity wears, the dies are not closed completely during swaging. If an inadequate number of presses are used, it could be quickly identified by checking the after swage dimension of the part.
10. Swaging Machine not producing sufficient tonnage will affect after swage dimensions.

No-Go Gauge Information

To assist in checking the after swage dimensions of the fitting, the Crosby Group provides the National No-Go Gauges. When used correctly the National No-Go Gauges can determine if the fittings were swaged to the proper diameter. We would recommend that all Crosby products or product swaged in Crosby dies be checked with the proper gauge to determine the acceptability of the swaging process.

- Gauges are made of hardened alloy steel and machined to strict tolerances.
- Gauge can be used to verify that all fittings have been swaged properly.
- After swage dimensions not within the maximum limits may result from worn dies or improper swaging techniques.
- Other type gauges are available upon request.
- National No-Go Gauges are available for a variety of products (See Table 1).
- **No-Go Gauges and QUIC-PASS® No-Go Gauges are not interchangeable.**

Table 1	
Fitting and Size	Part No.
505 Sleeve 1/4 - 7/8	1095512
505 Sleeve 1 - 1-1/2	1095521
505 Sleeve 1-3/4	1095530
505 Sleeve 2	1095549
505 Sleeve 2-1/4	1095558
505 Sleeve 2-1/2	1095587
505 Sleeve 2-3/4	1095576
505 Sleeve 3	1095565
505 Sleeve 3-1/2	1095594
505 Sleeve 3-3/4	1095601
505 Sleeve 4	1095610
501/502 Socket 1/4 - 1	1095647
501/502 Socket 1-1/8 - 1-3/4	1095656
501/502 Socket 2	1095665

Using No-Go Gauges

When swaged properly, the gauge will go up and down (see Figure 1) and around the full length of the fitting (see Figure 2).

For the proper after swage dimensions, see the section in this publication for the specific product you are swaging.

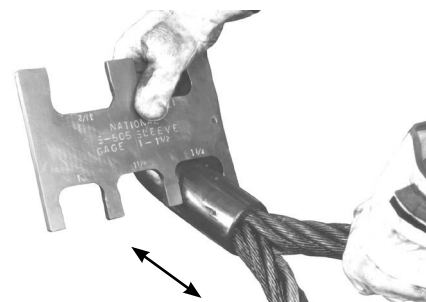


Figure 1

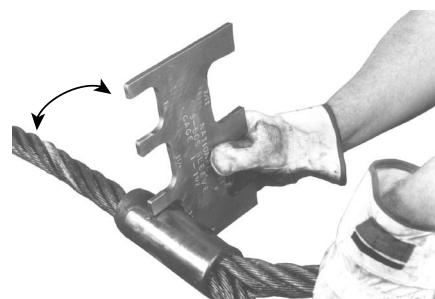


Figure 2