

## Rejuvenation Instructions

### #442 – Swage & Crimp Die Table



#### This NRI covers the following:

- How to select the correct swage and crimp dies.

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**WARNING:** It is dangerous working around energized high-voltage systems, pressurized systems, and chemicals. Always work in accordance to the Novinium Field Operations Safety Handbook (FOSH) or other local governing safety standards.

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## The Importance of Swage & Crimp Dies

- Using the correct swage or crimp die for a connector and/or injection adapter (IA) ensures a good electrical connection and prevents over-crimping of the conductor and connector.
- Over-crimping can create “ears” on the connector that cuts into the component body, which increases the chances of failure.
- The key idea is to use the correct die to prevent failure.

## The Swage Die’s Name

- The name of a swage die refers to the compressed inner diameter of the die. E.g., the inner diameter of a fully compressed 0742 die would measure about 0.742”.
- As a precaution, measure the swaged item’s diameter to check that the correct swage die was used and that the swage press did not compress completely.

## The Act of Swaging

- A complete Novinium swage is when the swage head’s shoulders make full contact with each other and the attached in-line hydraulic pump reaches at least 9000psi of pressure.
- This ensures full swage die compression, helping eliminate the formation of “ears” on the IA.
- The natural variance between individual swage presses and subjective visual clues are non-factors.

## Recommended Die Types/Sizes January 17, 2017

		6-ton dies		12-ton dies	At least 9000PSI
Connector Size	Connector Barrel O.D. (inches)	Burndy W-dies	Husky HT58 dies	Greenlee U-dies	Novinium Swage Dies
Coppertop #4 to 2/0	0.635	W-243	HT58G, HT58DM	U-BG, U-243	-
#2 to 2/0	0.687	W-245	HT58DP	U-245, U26ART	-
3/0	0.760	W-247, W-166	HT58DT	U-247, U27ART	-
Coppertop 3/0 to 4/0	0.785	W-247, W-166	HT58DT	U-247, U27ART	-
4/0 to 1/0 Transition	0.850	W-247, W-249, W-660	HT58DT	U-247, U-249, U27ART	0742 (White/White)
4/0	0.850	W-247, W-660	HT58DT	U28ART	0742 (White/White)
250 MCM	0.910	W-251	HT58DW	U-249, U29ART	0742 (White/White)
300 MCM	1.095	-	HT58DY	U-251, U30ART	0942 (White/Red)
350 MCM	1.125	-	-	U31ART	0995 (White/Purple)
400 MCM	1.135	-	-	U32ART	0995 (White/Purple)
500 MCM	1.320	-	-	U34ART	1152 (Gold/Gold)
600 MCM	1.405	-	-	U36ART	1262 (Gold/Red)
750 MCM	1.590	-	-	S39ART	1382 (Gold/Purple)
800 MCM	1.635	-	-	S40ART	1382 (Gold/Purple)
1000 MCM	1.840	-	-	S44ART	1598 (Red/Red)

**Swage Die Identifiers and Inner Diameters - January 17, 2017**

<b>NOVINIUM DIE NUMBER</b>	<b>COLOR 1</b>	<b>COLOR 2</b>	<b>COMPRESSED ID</b>	<b>OPEN ID</b>
<b>0742</b>	<b>WHITE</b>	<b>WHITE</b>	<b>0.742"</b>	<b>0.940"</b>
<b>0842</b>	<b>WHITE</b>	<b>GOLD</b>	<b>0.842"</b>	<b>1.060"</b>
<b>0942</b>	<b>WHITE</b>	<b>RED</b>	<b>0.942"</b>	<b>1.158"</b>
<b>0995</b>	<b>WHITE</b>	<b>PURPLE</b>	<b>0.995"</b>	<b>1.250"</b>
<b>1042</b>	<b>WHITE</b>	<b>BLUE</b>	<b>1.042"</b>	<b>1.310"</b>
<b>1152</b>	<b>GOLD</b>	<b>GOLD</b>	<b>1.152"</b>	<b>1.377"</b>
<b>1262</b>	<b>GOLD</b>	<b>RED</b>	<b>1.262"</b>	<b>1.552"</b>
<b>1382</b>	<b>GOLD</b>	<b>PURPLE</b>	<b>1.382"</b>	<b>1.641"</b>
<b>1498</b>	<b>GOLD</b>	<b>BLUE</b>	<b>1.498"</b>	<b>1.820"</b>
<b>1598</b>	<b>RED</b>	<b>RED</b>	<b>1.598"</b>	<b>1.945"</b>
<b>1682</b>	<b>RED</b>	<b>PURPLE</b>	<b>1.682"</b>	<b>2.070"</b>
<b>1772</b>	<b>RED</b>	<b>BLUE</b>	<b>1.772"</b>	<b>2.054"</b>
<b>1888</b>	<b>PURPLE</b>	<b>PURPLE</b>	<b>1.888"</b>	<b>2.275"</b>