Rejuvenation Instructions

#442 – Swage & Crimp Die Table

This NRI covers the following:

- How to select the correct swage and crimp dies.

Trademarks: http://www.novinium.com/trademarks/

Patents: http://www.novinium.com/patents/

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 - October 18, 2017						
NOVINIUM DIE NUMBER	COLOR 1	COLOR 2	CLOSED ID	Head Size	DMC Part #	AFL #
0742	WHITE	WHITE	0.742"	URD	DLT45CLDI00875	45TD14
0842	WHITE	GOLD	0.842"	URD	DLT45CLDI02500	45TD16
0942	WHITE	RED	0.942"	URD	DLT45NVDI0942	45TD18
0995	WHITE	PURPLE	0.995"	URD	DLT45NVDI0975	45TD19
1042	WHITE	BLUE	1.042"	URD	DLT45CLDI03975	45TD20
1152	GOLD	GOLD	1.152"	URD	DLT45NVDI1152	45TD22
1262	GOLD	RED	1.262"	FDR w/ Spacer	DLT45CLDI05565	45TD24
1382	GOLD	PURPLE	1.382"	FDR w/ Spacer	DLT45NVDI1382	45TD26
1498	GOLD	BLUE	1.498"	FDR w/ Spacer	DLT45CLDI07155	45TD28
1598	RED	RED	1.598"	FDR w/ Spacer	DLT45CLDI08745	45TD30
1682	RED	PURPLE	1.682"	FDR	DLT45CLDI11130	45TD32
1772	RED	BLUE	1.772"	FDR		45TD34
1888	PURPLE	PURPLE	1.888"	FDR	DLT45CLDI15900	45TD36