

**Crimper**    **Hose**    **Coupling**    **Crimp Instructions**    **CHART NUMBER**    **49**    **REV 02**

NP60    111    9200    **One-Piece**    Mark the hose at a distance from the end of the hose equal to the "Insertion Length". Install the fitting on the hose so that the mark is even with the end of the ferrule. Crimp the entire length of the ferrule to the Crimp Diameter given in the table. Tolerance +/- 0.1 mm or +/- 0.004 inches .

Hose	Ferrule	Fitting Insertion Length	Die	Crimp Length	Crimp Diameter		Dial Setting	
					mm	in	Approx.	Actual
111-04	9200	20	0.600	FULL	16.9	0.665	87	_____
111-06	9200	21	0.670	FULL	20.6	0.811	72	_____
111-08	9200	26	0.830	FULL	23.7	0.933	79	_____

**Crimper**    **Hose**    **Coupling**    **Crimp Instructions**    **CHART NUMBER**    **40**    **REV 06**

NP60    111    9400    **One-Piece**    Mark the hose at a distance from the end of the hose equal to the "Insertion Length". Install the fitting on the hose so that the mark is even with the end of the ferrule. Crimp the entire length of the ferrule to the Crimp Diameter given in the table. Tolerance +/- 0.1 mm or +/- 0.004 inches .

Hose	Ferrule	Fitting Insertion Length	Die	Crimp Length	Crimp Diameter		Dial Setting	
					mm	in	Approx.	Actual
111-10	9400	29	1.100	FULL	30.8	1.213	77	_____
111-12	9400	32	1.320	FULL	35.2	1.386	87	_____
111-16	9400	39	1.500	FULL	43.1	1.697	61	_____

**Crimper**    **Hose**    **Coupling**    **Crimp Instructions**    **CHART NUMBER**    **50**    **REV 02**

NP60    122    9200    **One-Piece**    Mark the hose at a distance from the end of the hose equal to the "Insertion Length". Install the fitting on the hose so that the mark is even with the end of the ferrule. Crimp the entire length of the ferrule to the Crimp Diameter given in the table. Tolerance +/- 0.1 mm or +/- 0.004 inches .

Hose	Ferrule	Fitting Insertion Length	Die	Crimp Length	Crimp Diameter		Dial Setting	
					mm	in	Approx.	Actual
122-04	9200	20	0.670	FULL	17.7	0.697	95	_____
122-06	9200	21	0.830	FULL	21.5	0.846	97	_____
122-08	9200	25	0.830	FULL	24.6	0.969	72	_____

<b>Crimper</b>	<b>Hose</b>	<b>Coupling</b>		<b>Crimp Instructions</b>	<b>CHART NUMBER</b>	<b>57</b>	<b>REV 02</b>
NP60	122	9400	One Piece	Mark the hose at a distance from the end of the hose equal to the "Insertion Length". Install the fitting on the hose so that the mark is even with the end of the ferrule. Crimp the entire length of the ferrule to the Crimp Diameter given in the table. Tolerance +/- 0.1 mm or +/- 0.004 inches .			

Hose	Ferrule	Fitting Insertion Length	Die	Crimp Length	Crimp Diameter		Dial Setting	
					mm	in	Approx.	Actual
122-06	9400	21	0.830	FULL	24.0	0.945	77	_____
122-08	9400	25	1.100	FULL	27.9	1.098	100	_____
122-10	9400	29	1.100	FULL	31.5	1.240	72	_____
122-12	9400	32	1.320	FULL	35.9	1.413	81	_____
122-16	9400	39	1.500	FULL	43.7	1.720	56	_____

**Crimper**    **Hose**    **Coupling**    **Crimp Instructions**    **CHART NUMBER**    **61**    **REV 05**

**NP60**    **112**    **9200**    **Non-Skive**    Mark the hose at a distance from the end of the hose equal to the "Insertion Length". Install the fitting on the hose so that the mark is even with the end of the ferrule. Crimp the entire length of the ferrule to the Crimp Diameter given in the table. Tolerance +/- 0.1 mm or +/- 0.004 inches .

Hose	Ferrule	Fitting Insertion Length	Die	Crimp Length	Crimp Diameter		Dial Setting	
					mm	in	Approx.	Actual
112-04	9200	20	0.670	FULL	17.2	0.677	97	_____
112-06	9200	21	0.670	FULL	20.6	0.811	72	_____
112-08	9200	25	0.830	FULL	24.0	0.945	77	_____

<b>Crimper</b>	<b>Hose</b>	<b>Coupling</b>	<b>Crimp Instructions</b>	<b>CHART NUMBER</b>	<b>42</b>	<b>REV 07</b>
NP60	124	9400	One-Piece	Mark the hose at a distance from the end of the hose equal to the "Insertion Length". Install the fitting on the hose so that the mark is even with the end of the ferrule. Crimp the entire length of the ferrule to the Crimp Diameter given in the table. Tolerance +/- 0.1 mm or +/- 0.004 inches .		

Hose	Ferrule	Fitting Insertion Length	Die	Crimp Length	Crimp Diameter		Dial Setting	
					mm	in	Approx.	Actual
124-06	9400	21	0.830	FULL	24.4	0.961	74	_____
124-08	9400	26	1.100	FULL	28.5	1.122	95	_____
124-10	9400	29	1.100	FULL	32.7	1.287	62	_____
124-12	9400	32	1.320	FULL	36.3	1.429	78	_____
124-16	9400	39	1.730	FULL	43.9	1.728	100	_____

<b>Crimper</b>	<b>Hose</b>	<b>Coupling</b>	<b>Crimp Instructions</b>	<b>CHART NUMBER</b>	<b>17</b>	<b>REV 12</b>
NP60	111	5000	Non-Skive	Tolerance +/- 0.1mm or +/- 0.004 inches .		

Hose	Ferrule	Die	Crimp Length	Crimp Diameter		Dial Setting	
				mm	in	Approx.	Actual
111-04	5501	0.670	FULL	17.2	0.677	97	_____
111-05	5502	0.670	FULL	19.8	0.780	78	_____
111-06	5512	0.670	FULL	20.6	0.811	72	_____
111-08	5502	0.830	FULL	23.7	0.933	79	_____
111-10	5502	1.100	FULL	28.5	1.122	95	_____
111-12	5502	1.100	FULL	32.3	1.272	66	_____
111-16	5502	1.500	FULL	43.2	1.701	60	_____

<b>Crimper</b>	<b>Hose</b>	<b>Coupling</b>	<b>Crimp Instructions</b>	<b>CHART NUMBER</b>	<b>18</b>	<b>REV 09</b>
NP60	122	5000	Non-Skive	Tolerance +/- 0.1mm or +/- 0.004 inches .		

Hose	Ferrule	Die	Crimp Length	Crimp Diameter		Dial Setting	
				mm	in	Approx.	Actual
122-04	5502	0.670	FULL	17.7	0.697	95	_____
122-06	5512	0.830	FULL	21.8	0.858	94	_____
122-08	5502	0.830	FULL	24.6	0.969	72	_____
122-10	5502	1.100	FULL	29.5	1.161	88	_____
122-12	5502	1.100	FULL	33.2	1.307	58	_____
122-16	5502	1.730	FULL	44.1	1.736	99	_____

<b>Crimper</b>	<b>Hose</b>	<b>Coupling</b>	<b>Crimp Instructions</b>	<b>CHART NUMBER</b>	<b>37</b>	<b>REV 08</b>
NP60	112	5000	Non-Skive	Tolerance +/- 0.1mm or +/- 0.004 inches .		

Hose	Ferrule	Die	Crimp Length	Crimp Diameter		Dial Setting	
				mm	in	Approx.	Actual
112-04	5501	0.670	FULL	17.2	0.677	97	_____
112-05	5502	0.670	FULL	19.8	0.780	78	_____
112-06	5512	0.670	FULL	20.5	0.807	72	_____
112-08	5502	0.830	FULL	24.0	0.945	77	_____
112-10	5502	1.100	FULL	28.5	1.122	95	_____
112-12	5502	1.100	FULL	32.3	1.272	66	_____
112-16	5502	1.500	FULL	43.3	1.705	59	_____

<b>Crimper</b>	<b>Hose</b>	<b>Coupling</b>	<b>Crimp Instructions</b>	<b>CHART NUMBER</b>	<b>33</b>	<b>REV 05</b>
NP60	122	5000	Non-Skive	Tolerance +/- 0.1mm or +/- 0.004 inches .		

Hose	Ferrule	Die	Crimp Length	Crimp Diameter		Dial Setting	
				mm	in	Approx.	Actual
122-06	5504	0.830	FULL	24.0	0.945	77	_____
122-08	5504	1.100	FULL	27.9	1.098	100	_____
122-10	5504	1.100	FULL	31.5	1.240	72	_____
122-12	5504	1.320	FULL	35.9	1.413	81	_____
122-16	5504	1.500	FULL	43.7	1.720	56	_____

<b>Crimper</b>	<b>Hose</b>	<b>Coupling</b>	<b>Crimp Instructions</b>	<b>CHART NUMBER</b>	<b>32</b>	<b>REV 06</b>
NP60	124	5000	Non-Skive	Tolerance +/- 0.1mm or +/- 0.004 inches .		

Hose	Ferrule	Die	Crimp Length	Crimp Diameter		Dial Setting	
				mm	in	Approx.	Actual
124-06	5504	0.830	FULL	24.4	0.961	74	_____
124-08	5504	1.100	FULL	28.5	1.122	95	_____
124-10	5504	1.100	FULL	32.7	1.287	62	_____
124-12	5504	1.320	FULL	36.3	1.429	78	_____
124-16	5504	1.730	FULL	43.9	1.728	100	_____

<b>Crimper</b>	<b>Hose</b>	<b>Coupling</b>	<b>Crimp Instructions</b>	<b>CHART NUMBER</b>	<b>67</b>	<b>REV 01</b>
NP60	141	5000	Non-Skive	Tolerance +/- 0.1mm or +/- 0.004 inches .		

Hose	Ferrule	Die	Crimp Length	Crimp Diameter		Dial Setting	
				mm	in	Approx.	Actual
141-12	5503	1.100	FULL	33.0	1.299	60	_____
141-16	5503	1.500	FULL	41.1	1.618	76	_____

Crimper	Hose	Coupling	Crimp Instructions	CHART NUMBER	59	REV 07
NP60	151	5000	Non-Skive Tolerance +/- 0.1mm or +/- 0.004 inches .			

A note on crimping 100R5 hose:

SAE 100R5 series hoses were initially designed as a flexible replacement to copper tubing, which is commonly defined by it's outside diameter. The result is that 100R5 hoses have smaller inside diameters than their nominal size (dash size) would indicate. For example, 151-08, nominally 1/2", actually has an I.D. of 13/32", since that is the I.D. of 1/2" O.D. copper tube. This creates confusion when crimping using inserts and ferrules designed for "full dimension hoses", where the nominal size is the inside diameter (ie. -08 hose is 1/2" I.D.). Be careful to check that selection of the appropriate sized ferrule and insert for the hose you are crimping. Quite often it will be smaller than the dash size of the R5 hose.

Hose	Ferrule	Crimp Insert Size	Die	Crimp Length	Crimp Diameter		Dial Setting	
					mm	in	Approx.	Actual
151-05	5503-04	-04	0.670	FULL	17.4	0.685	97	_____
151-06	5503-05	-05	0.670	FULL	20.8	0.819	70	_____
151-08	5503-06	-06	0.670	FULL	20.0	0.787	76	_____
151-10	5503-08	-08	0.830	FULL	24.9	0.980	70	_____
151-12	5503-10	-10	1.100	FULL	30.4	1.197	81	_____
151-16	5503-12	-14	1.320	FULL	34.8	1.370	90	_____
151-20	5503-16	-18	1.730	FULL	44.1	1.736	99	_____

<b>Crimper</b>	<b>Hose</b>	<b>Coupling</b>	<b>Crimp Instructions</b>	<b>CHART NUMBER</b>	<b>68</b>	<b>REV 01</b>
NP60	132	5000	Non-Skive	Tolerance +/- 0.1mm or +/- 0.004 inches .		

Hose	Ferrule	Die	Crimp Length	Crimp Diameter		Dial Setting	
				mm	in	Approx.	Actual
132-04	5503	0.670	FULL	17.7	0.697	95	_____
132-05	5503	0.830	FULL	21.5	0.846	97	_____
132-06	5503	0.670	FULL	20.7	0.815	71	_____
132-08	5503	0.830	FULL	25.7	1.012	64	_____
132-10	5503	1.100	FULL	30.7	1.209	78	_____
132-12	5503	1.320	FULL	34.8	1.370	90	_____
132-16	5503	1.500	FULL	42.6	1.677	65	_____

<b>Crimper</b>	<b>Hose</b>	<b>Coupling</b>	<b>Crimp Instructions</b>	<b>CHART NUMBER</b>	<b>77</b>	<b>REV 0</b>
NP60	172	5000	Non-Skive	Tolerance +/- 0.1mm or +/- 0.004 inches .		

Hose	Ferrule	Fitting Insertion Length	Die	Crimp Length	Crimp Diameter		Dial Setting	
					mm	in	Approx.	Actual
172-02	9700	13	0.350	13.0	9.1	0.358	98	_____
172-03	5507		0.350	FULL	11.2	0.441	82	_____
172-04	5507		0.520	FULL	14.1	0.555	93	_____
172-05	5507		0.600	FULL	16.7	0.657	88	_____
172-06	5507		0.670	FULL	18.9	0.744	85	_____
172-08	5507		0.830	FULL	23.5	0.925	81	_____

Crimper	Hose	Coupling		Crimp Instructions	CHART NUMBER	78	REV
NP60	182	5000	Non-Skive	Tolerance +/- 0.1mm or +/- 0.004 inches .			

Hose	Ferrule	Die	Crimp Length	Crimp Diameter		Dial Setting	
				mm	in	Approx.	Actual
182-04	5507	0.520	FULL	13.9	0.547	94	_____
182-06	5507	0.670	FULL	18.5	0.728	88	_____

<b>Crimper</b>	<b>Hose</b>	<b>Coupling</b>	<b>Crimp Instructions</b>	<b>CHART NUMBER</b>	<b>79</b>	<b>REV 0</b>
NP60	173	5000	Non-Skive	Tolerance +/- 0.1mm or +/- 0.004 inches .		

Hose	Ferrule	Die	Crimp Length	Crimp Diameter		Dial Setting	
				mm	in	Approx.	Actual
173-04	5507	0.520	FULL	14.1	0.555	93	_____
173-06	5507	0.670	FULL	19.0	0.748	84	_____

<b>Crimper</b>	<b>Hose</b>	<b>Coupling</b>	<b>Crimp Instructions</b>	<b>CHART NUMBER</b>	<b>58</b>	<b>REV 00</b>
NP60	37AL	5508	Non-Skive			

Hose	Ferrule	Die	Crimp Length	Crimp Diameter		Dial Setting	
				mm	in	Approx.	Actual
37AL-04	5508	0.520		14.2	0.559	92	_____
37AL-06	5508	0.670		19.0	0.748	84	_____
37AL-08	5508	0.830		23.0	0.906	85	_____

<b>Crimper</b>	<b>Hose</b>	<b>Coupling</b>		<b>Crimp Instructions</b>	<b>CHART NUMBER</b>	<b>21</b>	<b>REV 10</b>
NP60	111	5000	Skive	Tolerance +/- 0.1mm or +/- 0.004 inches .			

Hose	Ferrule	Cover Skive Length	Die	Crimp Length	Crimp Diameter		Dial Setting	
					mm	in	Approx.	Actual
111-04	5904	19	0.670	FULL	17.5	0.689	96	_____
111-05	5904	19	0.670	FULL	18.2	0.717	91	_____
111-06	5904	20	0.670	FULL	21.0	0.827	69	_____
111-08	5904	26	0.830	FULL	25.1	0.988	68	_____
111-10	5904	28	0.830	FULL	27.6	1.087	49	_____
111-12	5904	33	1.100	FULL	31.7	1.248	70	_____
111-16	5904	37	1.500	FULL	40.3	1.587	83	_____

<b>Crimper</b>	<b>Hose</b>	<b>Coupling</b>		<b>Crimp Instructions</b>	<b>CHART NUMBER</b>	<b>22</b>	<b>REV 09</b>
NP60	122	5000	Skive	Tolerance +/- 0.1mm or +/- 0.004 inches .			

Hose	Ferrule	Cover Skive Length	Die	Crimp Length	Crimp Diameter		Dial Setting	
					mm	in	Approx.	Actual
122-04	5904	17	0.670	FULL	18.1	0.713	91	_____
122-05	5904	19	0.670	FULL	19.1	0.752	84	_____
122-06	5904	20	0.830	FULL	21.9	0.862	93	_____
122-08	5904	26	0.830	FULL	25.9	1.020	62	_____
122-10	5904	28	1.100	FULL	28.5	1.122	95	_____
122-12	5904	33	1.100	FULL	32.5	1.280	64	_____
122-16	5904	37	1.500	FULL	41.0	1.614	77	_____

<b>Crimper</b>	<b>Hose</b>	<b>Coupling</b>		<b>Crimp Instructions</b>	<b>CHART NUMBER</b>	<b>23</b>	<b>REV 08</b>
NP60	124	5000	Skive	Tolerance +/- 0.1mm or +/- 0.004 inches .			

Hose	Ferrule	Cover Skive Length	Die	Crimp Length	Crimp Diameter		Dial Setting	
					mm	in	Approx.	Actual
124-10	5904	28	1.100	FULL	29.7	1.169	86	_____
124-12	5904	33	1.100	FULL	32.9	1.295	61	_____
124-16	5904	37	1.500	FULL	41.0	1.614	77	_____

<b>Crimper</b>	<b>Hose</b>	<b>Coupling</b>		<b>Crimp Instructions</b>	<b>CHART NUMBER</b>	<b>26</b>	<b>REV 12</b>
NP60	112	5000	Skive	Tolerance +/- 0.1mm or +/- 0.004 inches .			

Hose	Ferrule	Cover Skive Length	Die	Crimp Length	Crimp Diameter		Dial Setting	
					mm	in	Approx.	Actual
112-04	5904	19	0.670	FULL	17.3	0.681	98	_____
112-05	5904	19	0.670	FULL	18.2	0.717	91	_____
112-06	5904	20	0.670	FULL	20.9	0.823	69	_____
112-08	5904	26	0.830	FULL	25.3	0.996	67	_____
112-10	5904	28	0.830	FULL	27.6	1.087	49	_____
112-12	5904	33	1.100	FULL	31.7	1.248	70	_____
112-16	5904	37	1.500	FULL	40.4	1.591	82	_____

<b>Crimper</b>	<b>Hose</b>	<b>Coupling</b>		<b>Crimp Instructions</b>	<b>CHART NUMBER</b>	<b>27</b>	<b>REV 05</b>
NP60	113	5000	Skive	Tolerance +/- 0.1mm or +/- 0.004 inches .			

Hose	Ferrule	Cover Skive Length	Die	Crimp Length	Crimp Diameter		Dial Setting	
					mm	in	Approx.	Actual
113-08	5904	26	0.830	FULL	26.0	1.024	61	_____
113-10	5904	28	1.100	FULL	28.5	1.122	95	_____
113-12	5904	33	1.100	FULL	32.5	1.280	64	_____
113-16	5904	37	1.500	FULL	41.0	1.614	77	_____

<b>Crimper</b>	<b>Hose</b>	<b>Coupling</b>		<b>Crimp Instructions</b>	<b>CHART NUMBER</b>	<b>24</b>	<b>REV 12</b>
NP60	114	5000	Skive	Tolerance +/- 0.1mm or +/- 0.004 inches .			

Hose	Ferrule	Cover Skive Length	Die	Crimp Length	Crimp Diameter		Dial Setting	
					mm	in	Approx.	Actual
114-10	5904	28	1.100	FULL	29.2	1.150	90	_____
114-12	5904	33	1.100	FULL	33.3	1.311	58	_____
114-16	5904	37	1.500	FULL	41.3	1.626	75	_____

Crimper	Hose	Coupling		Crimp Instructions	CHART NUMBER		72	REV 01	
NP60	119B 118	5000	Skive	Tolerance +/- 0.1mm or +/- 0.004 inches .					
Hose	Ferrule	Cover Skive length		Die	Crimp Length	Crimp Diameter		Dial Setting	
		mm				mm	in	Approx.	Actual
119B -04	5904	19		0.670	FULL	17.1	0.673	99	_____
119B -06	5904	20		0.670	FULL	21.0	0.827	69	_____

Crimper	Hose	Coupling		Crimp Instructions	CHART NUMBER		51	REV 00	
NP60	119H	5000	Skive	Tolerance +/- 0.1mm or +/- 0.004 inches .					
Hose	Ferrule	Cover Skive Length		Die	Crimp Length	Crimp Diameter		Dial Setting	
		mm				mm	in	Approx.	Actual
119H-06	5904	20		0.670	FULL	21.0	0.827	69	_____

Crimper	Hose	Coupling	Crimp Instructions		CHART NUMBER		53	REV 00
NP60	120J	5000	Skive	Tolerance +/- 0.1mm or +/- 0.004 inches .				
Hose	Ferrule	Cover Skive Length	Die	Crimp Length	Crimp Diameter		Dial Setting	
		mm			mm	in	Approx.	Actual
120J-04	5904	19	0.670	FULL	18.1	0.713	91	_____
120J-06	5904	20	0.830	FULL	21.9	0.862	93	_____

<b>Crimper</b>	<b>Hose</b>	<b>Coupling</b>	<b>Crimp Instructions</b>	<b>CHART NUMBER</b>	<b>45</b>	<b>REV 01</b>
NP60	3130	9700	Non-Skive	Leave a section of ferrule nearest thread end of fitting uncrimped, crimp only to the position described in "Crimp Length". Crimp diameter tolerance +/- 0.1mm.		

Hose	Ferrule	Fitting Insertion Length	Die	Crimp Length	Crimp Diameter		Dial Setting	
					mm	in	Approx.	Actual
3130-02	9700	13	0.350	13.0mm	9.9	0.390	92	_____
3130-03	9700	20	0.350	20.5mm	12.1	0.476	75	_____
3130-04	9700	24	0.520	24.0mm	14.1	0.555	93	_____
3130-05	9700	22	0.600	22.5mm	16.0	0.630	94	_____
3130-06	9700	28	0.670	28.5mm	17.1	0.673	99	_____
3130-08	9700	27	0.670	27.0mm	21.0	0.827	69	_____
3130-12	9700	35	0.830	35mm	27.4	1.079	50	_____

<b>Crimper</b>	<b>Hose</b>	<b>Coupling</b>	<b>Crimp Instructions</b>	<b>CHART NUMBER</b>	<b>46</b>	<b>REV 01</b>
NP60	3R80	9800	Non-Skive			

Hose	Ferrule	Fitting Insertion Length	Die	Crimp Length	Crimp Diameter		Dial Setting	
					mm	in	Approx.	Actual
3R80-03	9800	24	0.520	24mm	13.2	0.520	100	_____
3R80-04	9800	24	0.600	24mm	16.6	0.654	89	_____
3R80-06	9800	28	0.670	28.5mm	19.6	0.772	80	_____
3R80-08	9800	32	0.830	32mm	22.4	0.882	90	_____
3R80-12	9800	34	1.100	33.5mm	28.6	1.126	95	_____
3R80-16	9800	46	1.320	46mm	37.1	1.461	72	_____

Crimper	Hose	Coupling		Crimp Instructions	CHART NUMBER	47	REV 01
NP60	183	9700	Non-Skive	Leave a section of ferrule nearest thread end of fitting uncrimped, crimp only to the position described in "Crimp Length". Crimp diameter tolerance +/- 0.1mm.			

Hose	Ferrule	Fitting Insertion Length	Die	Crimp Length	Crimp Diameter		Dial Setting	
					mm	in	Approx.	Actual
		mm			mm	in		

Crimper	Hose	Coupling		Crimp Instructions	CHART NUMBER	48	REV 00
NP60	170	9700	Non-Skive	Leave a section of ferrule nearest thread end of fitting uncrimped, crimp only to the position described in "Crimp Length". Crimp diameter tolerance +/- 0.1mm.			

Hose	Ferrule	Fitting Insertion Length	Die	Crimp Length	Crimp Diameter		Dial Setting	
					mm	in	Approx.	Actual
170-04	9700	24	0.520	KNURL	13.8	0.543	95	_____

Crimper	Hose	Coupling		Crimp Instructions	CHART NUMBER	11	REV 00
NP60	141	5000	Non-Skive	Tolerance +/- 0.1mm or +/- 0.004 inches .			

Hose	Ferrule	Die	Crimp Length	Crimp Diameter		Dial Setting	
				mm	in	Approx.	Actual
141-16	5904	1.500	FULL	42.2	1.661	68	_____

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Crimper    Hose    Coupling

Crimp Instructions

CHART NUMBER

11

REV 00