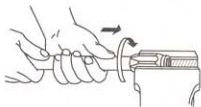


†To determine the correct length of hose, subtract the cut-off factor for each end fitting from the overall length of assembly.

**Hose End 213 'N' Series**


⚠ Refer to important safety information on page 3 of this catalog.

**Typical Application:** Medium pressure and high temperature hose lines for a variety of applications including truck, industrial, and small engines where high temperatures exist.

**Compatible Hose:** H213

**Pressure:** Determined by maximum working pressure for hose size and hose end configuration whichever is lesser. See page 14 for working pressure ratings for hose end configurations.

**Material:** AISI/SAE 12L14 carbon steel

**Plating:** Zinc; yellow dichromate finish

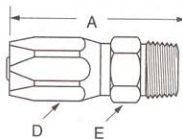
**Advantages:** Very popular in heavy-duty truck markets. Good selection of hose ends, including brass. Non-mandrel assembly.

**Ordering Information:** Order individually by catalog number.

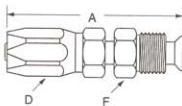
**Assembly Instructions:**

1. Lubricate insert threads and I.D. of hose.
2. Screw hose into socket (left-hand thread) until hose bottoms. Back out 1/4 turn.
3. Screw insert into socket until insert touches socket.

**Note:** Refer to current price list for availability of cataloged items. Configurations and dimensions subject to change without notice.

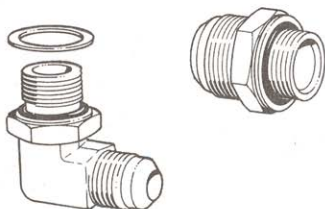
**Male Pipe Rigid**


HOSE LD	PIPE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX D	HEX F
3/16	1/8	21304N-102	1/8-27	1.59	.94	.12	9/16	7/16
3/16	1/4	21304N-104	1/4-18	1.78	1.13	.12	9/16	9/16
1/4	1/4	21305N-104	1/4-18	1.80	1.06	.17	5/8	9/16
5/16	3/8	21306N-106	3/8-18	1.96	1.19	.23	3/4	11/16
13/32	1/2	21308N-108	1/2-14	2.36	1.44	.33	7/8	7/8
1/2	1/2	21310N-108	1/2-14	2.45	1.44	.42	1	7/8
5/8	3/4	21312N-112	3/4-14	2.56	1.50	.55	1-1/8	1-1/16
7/8	1	21316N-116	1-11-1/2	2.71	1.69	.80	1-3/8	1-3/8

**Inverted Male Swivel Straight**


HOSE LD	TUBE SIZE	CATALOG NUMBER	THREAD SIZE	A	HOSE CUT-OFF FACTOR†	HOLE DIA.	HEX D	HEX F
3/16	1/4	21304N-B04	7/16-24	2.43	1.69	.15	9/16	7/16
1/4	5/16	21305N-B05	1/2-20	2.47	1.75	.21	5/8	1/2
5/16	1/4	21306N-B04	7/16-24	2.50	1.63	.15	3/4	7/16
5/16	5/16	21306N-B05	1/2-20	2.57	1.75	.21	3/4	1/2
5/16	3/8	21306N-B06	5/8-18	2.74	1.88	.25	3/4	5/8
13/32	1/2	21308N-B08	3/4-18	3.26	2.25	.33	7/8	3/4

## Metric Fittings



Sleeve 3-Piece  
Metric  
(Ref. SAE No. 070115)



TUBE O.D. (IN) SIZE	TUBE O.D. (MM SIZE)	CATALOG NUMBER
1/4	6MM	C5165x4x6MM
5/16	8MM	C5165x5x8MM
3/8	10MM	C5165x6x10MM
1/2	12MM	C5165x8x12MM
5/8	14MM	C5165x10x14MM
5/8	15MM	C5165x10x15MM
5/8	16MM	C5165x10x16MM
3/4	18MM	C5165x12x18MM
7/8	20MM	C5165x14x20MM
7/8	22MM	C5165x14x22MM
1	25MM	C5165x16x25MM
1-1/4	30MM	C5165x20x30MM
1-1/4	32MM	C5165x20x32MM
1-1/2	38MM	C5165x24x38MM

Adapts standard JIC Flare-Twin® fittings for use with metric tubing.

**Typical Application:** Used in applications to adapt connections and tubing to male swivel SAE 37° flare.

**Sealing Method:** Metric Tapered pipe thread, or o-ring or 37° flare.

**Vibration Rating:** Fair resistance.

**Material:** Carbon steel – SAE 12L14

**Plating:** Zinc with yellow dichromate finish.

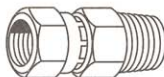
**Advantages:** Provides an adapter to convert metric ports to 37° allowing the use of standard hose and end fittings. Also metric tubing that can be flared can be adapted to a standard 37° SAE connection.

Male JIC 37° To Male  
Metric Straight Thread  
Connector



TUBE O.D.	MALE METRIC THREAD	CATALOG NUMBER
1/4	M10x1.0	MC5315x4x10
1/4	M12x1.5	MC5315x4x12
1/4	M14x1.5	MC5315x4x14
3/8	M14x1.5	MC5315x6x14
3/8	M16x1.5	MC5315x6x16
1/2	M18x1.5	MC5315x8x18
1/2	M22x1.5	MC5315x8x22
5/8	M20x1.5	MC5315x10x20
3/4	M22x1.5	MC5315x12x22
3/4	M27x2.0	MC5315x12x27
1	M33x2.0	MC5315x16x33
1-1/4	M42x2.0	MC5315x20x42

Female JIC 37° Swivel  
To Male JIS Metric Taper  
Pipe Thread



TUBE O.D.	JIS TAPER PIPE THREAD	CATALOG NUMBER
1/4	M10x1.0	M9700x4x6
5/16	M12x1.5	M9700x5x8
3/8	M14x1.5	M9700x6x10
1/2	M16x1.5	M9700x8x12
5/8	M20x1.5	M9700x10x14
3/4	M24x1.5	M9700x12x20
1	M27x2.0	M9700x16x25
1-1/4	M36x2.0	M9700x20x32

NOTE: Multiply millimeters (mm) by 0.03937 to obtain inches.

# Equipment

## Assortments

### MA-100 • Metric Adapter Assortment (with Cabinet)



The MA-100 is an ideal assortment to begin a metric adapter inventory. Offered are a variety of male British Standard Tapered Pipe and British Standard Parallel fittings in straight and 90° elbow configurations, sizes ranging from 1/8" through 1-1/4". Two male DIN (German metric) fittings adapt SAE fittings and hose

ends to metric size tubing, and a third DIN fitting connects SAE fittings with metric female swivel adapters, sizes ranging from 6mm through 42mm. The C5165X metric sleeves adapt metric tubing used with standard JIC fittings. The MA-100 is supplied with cabinet for accurate and easy access to your metric fittings.

**Replacement Drawers:**  
PD-49 (one drawer)

**Replacement Dividers:**  
PD-75 Set (25/set)

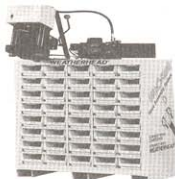
### MA-100 Contents

CATALOG NUMBER	QTY.	CATALOG NUMBER	QTY.	CATALOG NUMBER	QTY.	CATALOG NUMBER	QTY.	CATALOG NUMBER	QTY.
7165X6MM	5	M9700X5X8	2	MB5515X6X4	5	MC5208X6X6	2	MH7105X6	5
7165X8MM	2	M9700X6X10	2	MB5515X6X6	5	MC5208X8X10	2	MH7105X8	5
7165X10MM	5	M9700X8X12	2	MB5515X8X6	5	MC5208X10X14	2	MH7105X10	5
7165X12MM	5	M9700X10X14	2	MB5515X8X8	5	MC5208X12X16	2	MH7105X12	5
7165X14MM	5	M9700X12X20	2	MB5515X10X12	5	MC5315X4X10	2	MH7105X14	5
7165X15MM	5	M9700X16X25	2	MB5515X12X12	5	MC5315X4X12	2	MH7105X16	5
7165X16MM	5	M9700X20X32	1	MB5515X16X16	2	MC5315X6X14	2	MH7105X20	5
7165X18MM	5	M9800X4X4	2	MB5515X20X20	2	MC5315X6X16	2	MH7105X25	5
7165X20MM	5	M9800X5X4	2	MC5205X4X2	5	MC5315X8X18	2	MH7105X30	5
7165X22MM	5	M9800X6X4	2	MC5205X4X4	5	MC5315X10X20	2	ML7105X6	5
7165X25MM	5	M9800X8X4	2	MC5205X5X4	5	MC5315X12X22	2	ML7105X8	5
7165X28MM	5	M9800X8X6	2	MC5205X6X4	5	MC5315X12X27	2	ML7105X10	5
7165X30MM	5	M9800X8X8	2	MC5205X6X6	5	MC5315X16X33	2	ML7105X12	5
M7629X10	5	M9800X10X8	2	MC5205X8X6	5	MC5315X20X42	1	ML7105X15	5
M7629X14	5	M9800X12X8	2	MC5205X8X8	5	MC5405X4X4	5	ML7105X18	5
M7629X16	5	M9800X12X12	2	MC5205X10X8	5	MC5405X5X4	5	ML7105X22	5
M7629X18	5	M9800X16X12	2	MC5205X10X12	5	MC5405X6X4	5	ML7105X28	5
M7629X20	5	M9800X16X16	2	MC5205X12X12	5	MC5405X6X6	5	C5165X4X6MM	5
M7629X22	5	M9800X20X20	1	MC5205X16X16	2	MC5405X8X6	5	C5165X5X8MM	5
M7629X27	5	MB5315X4X2	5	MC5205X20X20	2	MC5405X8X8	5	C5165X6X10MM	5
M7629X33	5	MB5315X4X4	5	MC5206X4X6	2	MC5405X10X12	5	C5165X8X12MM	5
M7629X42	5	MB5315X5X4	5	MC5206X6X8	2	MC5405X12X15	5	C5165X10X14MM	5
M9600X4X4	2	MB5315X6X4	5	MC5206X8X10	2	MC5405X16X16	2	C5165X10X15MM	5
M9600X5X4	2	MB5315X6X6	5	MC5206X8X12	2	MC5405X20X20	2	C5165X10X16MM	5
M9600X6X4	2	MB5315X8X6	5	MC5206X10X15	2	MC5515X4X12	2	C5165X12X18MM	5
M9600X6X6	2	MB5315X8X8	5	MC5206X12X18	2	MC5405X16X14	2	C5165X14X20MM	5
M9600X8X6	2	MB5315X10X12	5	MC5207X4X6	2	MC5515X6X16	2	C5165X16X25MM	5
M9600X8X8	2	MB5315X12X12	5	MC5207X6X8	2	MC5515X8X18	2	C5165X20X30MM	5
M9600X10X8	2	MB5315X16X16	2	MC5207X8X10	2	MC5515X10X20	2	C5165X20X32MM	5
M9600X12X12	2	MB5315X20X20	2	MC5207X8X12	2	MC5515X12X22	2	C-5X	1
M9600X16X16	2	MB5515X4X4	5	MC5207X10X15	2	MC5515X12X27	2	C-63X	1
M9600X20X20	1	MB5515X5X4	5	MC5207X12X18	2	MC5515X16X33	1	CL-502	1
M9700X4X6	2							TA-1002	1

# Equipment

## Assortments

### CA-50 • Coll-O-Crimp Super I Assortment (with Cabinet)



The CA-50 assortment includes everything you need to service your larger hydraulic applications. Five sizes of 2 wire hose and four sizes of 4 wire hose combined with a variety of hose ends and adapters gives you the coverage you need. Included with this

assortment are skiving tools and a 40-drawer cabinet for mounting your press and storage. Also available are assortments with a cut-off saw or less the equipment.

**CA-50:** Includes contents listed below.

**CA-50-CO:** Includes contents listed below less equipment and cabinet.

**CA-50-NH:** Includes contents listed below less hose.

**CA-50-60A:** Includes contents listed below plus T-60A Saw.

### CA-50 Contents

CATALOG NUMBER	QTY.	CATALOG NUMBER	QTY.	CATALOG NUMBER	QTY.	CATALOG NUMBER	QTY.
04U-102	5	08U-512	5	43012U-G12	1	C5205X4	4
04U-104	10	08U-608	10	43012U-G42	1	C5205X4X4	2
04U-106	5	08U-610	5	43012U-G72	1	C5205X6	4
04U-504	5	08U-612	5	43016U-116	2	C5205X6X6	4
04U-506	5	08U-668	5	43016U-616	2	C5205X8	4
04U-604	10	08U-670	5	43016U-G16	1	C5205X8X8	4
04U-605	5	08U-688	5	43016U-G46	1	C5205X10	2
04U-606	5	08U-758	5	43016U-G76	1	C5205X12	2
04U-664	5	08U-760	5	43020U-120	1	C5205X16	1
04U-604	5	08U-J08	5	43020U-620	1	C5315X8	1
04U-J04	5	08U-P08	5	43020U-G20	1	C5405X6	2
08U-104	10	08U-P10	5	43020U-G50	1	C5405X6X6	2
08U-106	10	12U-112	10	43020U-G80	1	C5405X8	2
08U-108	5	12U-116	2	9205X2X2	5	C5405X8X8	2
08U-406	5	12U-412	5	9205X4X4	5	C5405X10	1
08U-506	5	12U-512	5	9205X6X6	5	C5515X8	1
08U-508	5	12U-610	5	9205X6X8	5	H24504	50'
08U-604	5	12U-612	10	9205X8X6	5	H24506	50'
08U-606	10	12U-614	5	9205X8X8	5	H24508	50'
08U-608	5	12U-616	2	9205X12X12	2	H24512	50'
08U-610	5	12U-672	2	9205X16X16	1	H24516	50'
08U-666	5	12U-692	2	9405X4X4	5	H43008	50'
08U-668	5	12U-J12	5	9405X6X6	5	H43012	50'
08U-755	5	16U-116	5	9405X8X8	5	H43016	50'
08U-756	5	16U-516	2	9405X12X12	2	H43020	50'
08U-B06	5	16U-616	5	9405X16X16	1	T-420-N	1
08U-B66	5	16U-676	1	C-40X	1	FS-1100	1
08U-J06	5	16U-J16	1	C5105X4	2	FS-100	1
08U-J08	5	43008U-108	2	C5105X6	2	FS-200	1
08U-P08	5	43008U-608	2	C5105X8	2	FS-3100	1
08U-106	5	43008U-G08	1	C5105X12	1		
08U-108	10	43008U-G41	1	C5165X4	10		
08U-112	5	43008U-G71	1	C5165X6	10		
08U-508	5	43012U-112	2	C5165X8	10		
08U-510	5	43012U-612	2	C5165X12	5		