MARIO

INDUSTRIAL HOSE INNOVATIONS

(Clickable Table of Contents)

WWW.MARIOMFG.COM

Time Is Money.

2 piece fittings
+ 2 people
+ lots of time
= lots of sweat

1 piece NoSweat
+ 1 person
+ 1/2 the time
= 1/4 the cost

1 piece construction
+ proprietary serrations
+ safeguards against failure/ejection
= safer people, animals & environment

Depicted in Photo:
MP200-A NS 600#

Time to Buy & Save

WWW.MARIOMFG.COM
PHONE 337.534.4215 | FAX 337.534.4216
843 STEWART STREET, LAFAYETTE, LA 70501

NO SWEAT®

HOW NO SWEAT®IS USED

Recommended for most one and two wire braided, fiber braided and helical wire reinforced hoses, such as:

- Oil suction and discharge hose
- Barge and dock loading and unloading hose
- Frac hose
- Chemical hose

Many more.....Just call the shop, we can't wait to hear from you!

Looking to save 30%?
See our NO SWEAT® 300

Need a corrosive chemical hose solution?
See our NO SWEAT® UHMW PLUS

1000 PSI offshore requirement?
See our NO SWEAT® Roughneck

Weld Preps? YES

150# Fixed and Floats? YES

SIZE/PART#		HOSE O.D. RANGE		* MAX WP PSI	FORCE		LIST PRICE
		FROM	TO		LBS.	TONS	
2"	MP200-A NS	2-20/64"	2-44/64"	600	1885	0.94	$85.50
	MP200-B NS	2-34/64"	2-52/64"	600			$87.12
	MP200-C NS	2-42/64"	2-60/64"	600			$96.36
	MP200-D NS	2-50/64"	3-4/64"	600			$96.36
3"	MP300-AA NS	3-20/64"	3-38/64"	600	4241	2.12	$130.68
	MP300-A NS	3-26/64"	3-44/64"	600			$130.68
	MP300-B NS	3-34/64"	3-52/64"	600			$137.28
	MP300-C NS	3-42/64"	3-60/64"	600			$139.92
	MP300-D NS	3-50/64"	4-4/64"	600			$158.40
4"	MP400-AA NS	4-26/64"	4-44/64"	500	6283	3.14	$203.28
	MP400-A NS	4-34/64"	4-52/64"	500			$203.28
	MP400-B NS	4-42/64"	4-60/64"	500			$203.28
	MP400-C NS	4-50/64"	5-4/64"	500			$203.28
	MP400-D NS	4-58/64"	5-12/64"	500			$203.28
5"	MP500-A NS	5-33/64"	6-8/64"	450	8836	4.42	$550.26
6"	MP600-AA NS	6-41/64"	7-4/64"	400	11310	5.65	$492.56
	MP600-A NS	6-46/64"	7-12/64"	400			$492.56
	MP600-D NS	7-3/64"	7-30/64"	400			$492.56
8"	MP800-AANS	8-30/64"	9-28/64"	350	17593	8.80	$780.02
	MP800-A NS	9"	9-36/64"	350			$780.02

REVISION DATE 12/26/16

WWW.MARIOMFG.COM
Phone 337.534.4215 | Fax 337.534.4216
843 STEWART STREET, LAFAYETTE, LA 70501

MARIO
INDUSTRIAL HOSE INNOVATIONS

Professional Tools & Equipment

Product Sheet

Mario's Flagship product NO SWEAT® "the original one piece crimp fitting" is the standard bearer in the industry for safety, time savings and value in the 600# MAX WP class.

We are equally proud to be #1 in the Economy, Chemical, High Pressure AND Welded Assembly classification with a unique NO SWEAT® product that features all of the major benefits of the standard NO SWEAT®.

NO SWEAT® PRODUCT FAMILY

- **INTEGRAL ONE PIECE FITTING**
- **EASE OF INSERTION**
- **EASE OF ASSEMBLY AND TESTING**

NS300 (Carbon Steel Male)

PART #	HOSE SIZE	FERRULE ID	LIST PRICE
NS300CS-200A	2"	2 11/16"	$50.52
NS300CS-300AA	3"	3 11/16"	$83.60
NS300CS-400AA	4"	4 11/16"	$107.23

ECONOMY - SAVE 30%

300# *MAX WP

UHMW PLUS (304SS Ferrule x 316SS Male)

PART #	HOSE SIZE	FERRULE ID	LIST PRICE
NS300SS-200B	2"	2.812"	$104.42
NS300SS-300A	3"	3.687"	$219.60
NS300SS-400A	4"	4.812"	$337.20
NS300-600AA	6"	7.125"	$777.78

CHEMICAL - THE ANSWER TO ALL THE CHALLENGES

300# *MAX WP

Smooth rounded serrations are machined to provide retention without damaging the hose.

Three small grooves at the tail end of the fittings are machined to allow the cross link/UHMW liner to flow into the grooves. This process will form three "O" ring grooves.

ROUGHNECK

- 3000# *MAX WP IN 3" AND 1000# IN SIZES 4" AND 6"
- Available in Male Pipe and Weld Prep ends
- Available in Carbon and Stainless

CALL SUSAN FOR PRICING AND AVAILABILITY

HIGH PRESSURE - HEAVY DUTY OFFSHORE APPLICATIONS

3000# *MAX WP

*Recommended working pressures are at 70° ambient temperature. Remember that the hose assembly's maximum working pressure is the lesser of the rated working pressure of the coupling or the hose.

WELD PREPS

NS150 Weld Prep

PART #	HOSE SIZE	FERRULE ID	LIST PRICE
NS150-400AAWP	4”	4 11/16”	$117.52
NS150-600AAWP	6”	7 1/16”	$287.33
NS150-800AAWP	8”	9 7/16”	$455.03

Our NS150 Weld Preps are specifically made and designed in the sizes that you need most while saving you 30% off our standard NO SWEAT® while maintaining all the standard NO SWEAT® benefits.

WELDED ASSEMBLIES

150# FIXED

NO SWEAT®

150# FLOATING

MW400-ANSWA FIX	4”	No Sweat® Assembly	-A Fixed Flange	$390.72
MW400-ANSWA FL	4”	No Sweat® Assembly	-A Floating Flange	$498.72
MW400-BNSWA FIX	4”	No Sweat® Assembly	-B Fixed Flange	$390.72
MW400-BNSWA FL	4”	No Sweat® Assembly	-B Floating Flange	$498.72
MW600-AANSWA FIX	6”	No Sweat® Assembly	-AA Fixed Flange	$739.20
MW600-AANSWA FL	6”	No Sweat® Assembly	-AA Floating Flange	$932.80
MW600-ANSWA FIX	6”	No Sweat® Assembly	-A Fixed Flange	$739.20
MW600-ANSWA FL	6”	No Sweat® Assembly	-A Floating Flange	$932.80
MW800-AANSWA FIX	8”	No Sweat® Assembly	-AA Fixed Flange	$1,069.20
MW800-AANSWA FL	8”	No Sweat® Assembly	-AA Floating Flange	$1,261.92
MW800-ANSWA FIX	8”	No Sweat® Assembly	-A Fixed Flange	$1069.20
MW800-ANSWA FL	8”	No Sweat® Assembly	-A Floating Flange	$1,261.92

DON’T FORGET ASSEMBLIES ALSO AVAILABLE IN MARIO GOLD

All Weld Preps and Welded Assemblies are rated for a maximum working pressure of 150#.

WWW.MARIOMFG.COM
Phone 337.534.4215 | Fax 337.534.4216 | 843 STEWART STREET, LAFAYETTE, LA 70501

MARIO
INDUSTRIAL HOSE INNOVATIONS

Professional Tools & Equipment

Product Sheet

GO FOR THE GOLD!

GOLD

The **TRADITIONAL** "Two Piece" Fitting System

600# GOLD

***MAX WP**

We are the only industrial hose fitting manufacturer using a two-stage zinc plating with yellow chromate coating. This helps you distinguish between our product and cheap, unsafe knock-offs.

J. Mario Corzo

A word from our founder on the traditional two piece fitting: "This fitting has been around for well over 100 years and it is a good design far superior to cheaper inter-locking fittings out there. I personally started making the swaging dies for this line 40 years ago. The one major concern that I always had about this thing is that EVERYBODY makes them and plates them silver, consequently it is nearly impossible to distinguish one brand from the other. It is too big of a safety liability to mix and match and I've seen it occur time and time again.

In 2005 I started making them GOLD to eliminate the ongoing dangers and liabilities our customers were facing in trying to avoid the risk of mix and match fittings.

I feel a great sense of pride while driving on I-10 or Highway 90 and I see a flatbed filled with industrial hose assemblies with GOLD on the ends.....I know I did my small part in making the world a safer place".

WE, the fitting manufacturers, the hose manufacturers and distributors, have a moral obligation to educate and protect people from the dangers of assembly failures.

MARIO believes that PSI counts but FORCE matters!

Consider these facts about FORCE (the silent killer):

A 4" Hose Assembly working at 500 PSI = 6283 lbs. of **FORCE**.

THAT'S 3.14 TONS OF **LIABILITY!**

Don't risk the safety of our end users, neighborhoods and environment by settling for anything less than GOLD.

Our GOLD invitation to you: Please benefit your business and yourself by touring our operation and experiencing South Louisiana with the likeminded friendly folks of MARIO. Whether you are bringing your family to Festival International de Louisiane, Festival Acadiens de et Creole, the real Mardi Gras in Mamou, or Jazz Fest in New Orleans, stop by and say hi. To schedule a visit call (337) 534-4215 or contact us at www.mariomfg.com or email susan@mariomfg.com, randy@mariomfg.com or rob@mariomfg.com.

HOW GOLD IS USED

Recommended for most one and two wire braided, fiber braided and helical wire reinforced hoses, such as:

- Oil suction and discharge hose
- Barge and dock loading and unloading hose
- Frac hose
- Chemical hose

Many more.....Just call the shop, we can't wait to hear from you!

*Recommended working pressures are at 70° ambient temperature. Remember that the hose assembly's maximum working pressure is the lesser of the rated working pressure of the coupling or the hose.

MALE PIPE SIZES AND MAX WP PSI			
SIZE/PART#		*MAX WP PSI	LIST PRICE
2"	MP200	600	$43.56
2 1/2"	MP250	600	$67.32
3"	MP300	600	$75.24
4"	MP400	500	$95.04
5'	MP500	450	$269.28
6"	MP600	400	$217.80
8"	MP800	350	$293.04

BEVELED END SIZES AND MAX WP PSI			
SIZE/PART#		*MAX WP PSI	LIST PRICE
2"	MW200	600	$43.56
2 1/2"	MW250	600	$66.00
3"	MW300	600	$75.24
4"	MW400	500	$95.04
5'	MW500	450	$269.28
6"	MW600	400	$217.80
8"	MW800	350	$293.04

WE ARE HAPPY TO QUOTE AND PRODUCE THE FOLLOWING UPON REQUEST:

- 10" and 12" Sizes
- Victaulic Grooves
- 304 and 316 Stainless Steel

#150 FIXED AND FLOATING FLANGE ASSEMBLIES

- Pricing is on our website
- Quick Deliveries Available

REVISION DATE 12/26/16

FERRULE SIZES AND RANGES				
SIZE/PART#		FROM	TO	LIST PRICE
2"	F200-A	2 9/16"	2 5/8"	$ 42.24
	F200-B	2 41/64"	2 3/4"	$42.56
	F200-C	2 49/64"	2 7/8"	$52.80
	F200-D	2 57/64"	3 1/32"	$52.80
2-1/2"	F250-A	3 1/16"	3 1/8"	$64.68
	F250-B	3 9/64"	3 1/4"	$64.68
	F250-C	3 17/64"	3 3/8"	$64.68
	F250-D	3 25/64"	3 1/2"	$77.88
3"	F300-A	3 9/16"	3 5/8"	$55.44
	F300-B	3 41/64"	3 3/4"	$62.04
	F300-C	3 49/64"	3 7/8"	$64.68
	F300-D	3 57/64"	4"	$83.16
	F300-F	4-2/64"	4-20/64"	$83.15
4"	F400-AA	4 26/64"	4 39/64"	$108.24
	F400-A	4 5/8"	4 11/16"	$108.24
	F400-B	4 45/64"	4 13/16"	$108.24
	F400-C	4 53/64"	4 15/16"	$108.24
	F400-D	4 61/64"	5 1/16"	$108.24
	F400-E	5-2/64"	5-20/64"	$108.24
5"	F500-AA	5 11/16"	5 44/64"	$280.98
	F500-A	5 7/8"	5 15/16"	$280.98
	F500-B	5 61/64"	6 1/16"	$280.98
	F500-C	5 5/64"	6 3/16"	$317.52
6"	F600-AA	6 3/4"	6 63/64"	$265.74
	F600-A	7"	7 1/16"	$274.76
	F600-B	7 5/64"	7 3/16"	$274.76
	F600-C	7 13/64"	7 5/16"	$274.76
	F600-D	7-3/64"	7-30/64"	$274.76
8"	F800-AA	8 7/8'	9 19/64'	$486.98
	F800-A	9 5/16"	9 3/8"	$486.98
	F800-B	9 25/64"	9 1/2"	$486.98
	F800-C	9 33/64"	9 5/8"	$486.98
	F800-D	9 41/64"	9 3/4"	$501.60

WWW.MARIOMFG.COM
Phone 337.534.4215 | Fax 337.534.4216 | 843 STEWART STREET, LAFAYETTE, LA 70501

MALE PIPE SIZES AND MAX WP PSI 316 STAINLESS STEEL			
SIZE/PART#		MAX WP PSI	LIST PRICE
2”	MPSR200	600	$91.77
3”	MPSR300	600	$200.20
4”	MPSR400	500	$231.00
6”	MPSR600	400	**POR***

FERRULE SIZES AND RANGES 316 STAINLESS STEEL				
SIZE/PART#		FROM	TO	LIST PRICE
2”	FSR200-B	2 41/64”	2 3/4	$90.00
3”	FSR300-B	2 41/64”	3 3/4	$200.00
4”	FSR400-B	4 45/64”	4 13/16”	$300.00
6”	FSR600-B	7 5/64”	7 3/16”	$466.66

BEVELED END SIZES AND MAX WP PSI 316 STAINLESS STEEL			
SIZE/PART#		MAX WP PSI	LIST PRICE
2”	MWSR200	600	$124.30
3”	MWSR300	600	$231.00
4”	MWSR400	500	$352.00
6”	MWSR600	400	**POR***

SAME TRADITIONAL 2 PIECE SYSTEM AS MARIO GOLD

READY TO SHIP NOW- CALL NOW!

***Pricing available upon request.**

WWW.MARIOMFG .COM
Phone 337.534.4215| Fax 337.534.4216
843 STEWART STREET, LAFAYETTE, LA 70501

START WINNING STAINLESS STEEL WELDED ASSEMBLY BUSINESS

WE HELP YOU SAVE & SUCCEED WITH FLOATING FLANGE ASSEMBLIES INCLUDING:

- 304 SS NoSweat Turnback with UHMW Plus Shank
- Standard Carbon Steel Ferrule with Serrations
- 150# Carbon Steel Lap Joint Flange

NO SWEAT

THIS IS ONE PIECE CONSTRUCTION (No additional welding or welding qualification required PERIOD!

*If you are positive that you need a stainless steel flange (fixed or float), we can still help you save by using a carbon steel ferrule.

CALL FOR PRICING!

WWW.MARIOMFG .COM
Phone 337.534.4215| Fax 337.534.4216 | 843 STEWART STREET, LAFAYETTE, LA 70501

MARIO
INDUSTRIAL HOSE INNOVATIONS

Professional Tools & Equipment

Product Sheet

THE BEAST

1502 INTEGRAL SUB-UNION

5000#

*MAX WP

2FERBST-NSK	2” 1502 FERRULE “BEAST”
2MBST1502-NSK	2” MALE “BEAST” 1502 THREAD HALF STEM NON SKIVE
2FBST1502NSK	2” FEMALE “BEAST” 1502 WING HALF STEM NON SKIVE

- 2” INTEGRAL FIGURE 1502 SUB-UNION
- NON-SKIVE
- ALSO AVAILABLE IN H2S/SOUR GAS

CALL SUSAN FOR PRICING AND DELIVERY!

WWW.MARIOMFG.COM
Phone 337.534.4215 | Fax 337.534.4216
843 STEWART STREET, LAFAYETTE, LA 70501

MARIO
INDUSTRIAL HOSE INNOVATIONS

Professional Tools & Equipment

Product Sheet

HOSE LIFTER

MARIO HOSE LIFT SYSTEM

Based on our **GOLD** two piece traditional fittings the MARIO HOSE LIFT SYSTEM eliminates bulk handling those spills.

MALE PIPE HOSE LIFT STEMS		
PART #	**DESCRIPTION**	**LIST PRICE**
MP200-HL	Stem 2" Carbon Male Extended for Hose Lift Attachment	$92.40
MP300-HL	Stem 3" Carbon Male Extended for Hose Lift Attachment	$136.39
MP400-HL	Stem 4" Carbon Male Extended for Hose Lift Attachment	$180.38
MP500-HL	Stem 5" Carbon Male Extended for Hose Lift Attachment	$466.54
MP600-HL	Stem 6" Carbon Male Extended for Hose Lift Attachment	$800.00

MALE PIPE HOSE LIFT ATTACHMENTS PART#		
PART #	**DESCRIPTION**	**LIST PRICE**
MHL – 200	2" Master Hose Lift Attachment	$596.44
MHL – 300	3" Master Hose Lift Attachment	$625.19
MHL – 400	4" Master Hose Lift Attachment	$662.22
MHL – 500	5" Master Hose Lift Attachment	$699.26
MHL – 600	6" Master Hose Lift Attachment	$1,347.22

CLAMPS		
PART #	**DESCRIPTION**	**LIST PRICE**
MHLLC-200	2" Clamps	$125.78
MHLLC-300	3" Clamps	$139.96
MHLLC-400	4" Clamps	$151.78
MHLLC-500	5" Clamps	$173.33
MHLLC-600	6" Clamps	$206.70

FULLY PROOF TESTED - CERTIFICATE APPROVED

WWW.MARIOMFG.COM
Phone 337.534.4215 | Fax 337.534.4216
843 STEWART STREET, LAFAYETTE, LA 70501

MARIO
INDUSTRIAL HOSE INNOVATIONS

QUICK TESTING PROGRAM

TEST CAPS

GOES ON QUICK & EASY

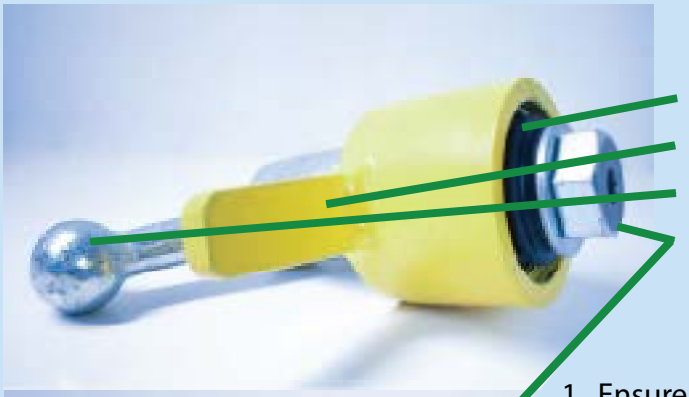
PAYS FOR ITSELF

SIMPLE TO LEARN, TEACH & TROUBLEHSOOT

Sizes 2", 3" & 4" in stock or in production due to high demand.

NO SWEAT®

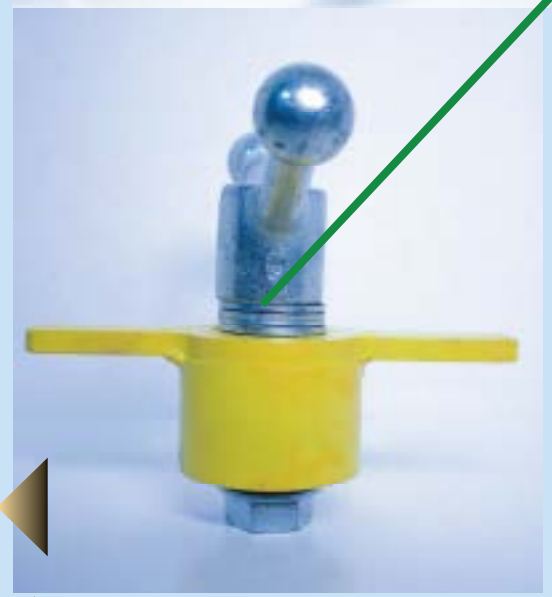
The best way to get started is to contact our office and set-up what we call the "Dog & Pony Show". We come out to your place and demonstrate to your people the WHY and HOW of the benefits of the NO SWEAT principles from top to bottom. From fitting to hose insertion to crimping to testing to excellence and savings. INSTRUCTIONS & CONTACT INFO ON PAGE 2



DIAGRAM

A. Internal expanding rubber
B. No Sweat Test Cap
C. Large Winged Nut
D. Center Bolt

NO SWEAT®



INSTRUCTIONS

1. Ensure the inside of the fitting being test is clean and free of debris or any weld flash.

(NOTE: If there is weld flash remaining from the pipe mill, (B) No Sweat Test Caps cannot be used because they will not seal and the weld flash will destroy the internal expandable rubber plug).

2. Looking at the inside of the No Sweat Test Cap, ensure the (A) internal expanding rubber plug is clean of debris and free of cuts in the rubber plug.

(NOTE: If the (A) internal expanding rubber plug is damaged it should be replaced before proceeding).

3. Attach the (B) No Sweat Test Cap by threading it onto the male pipe thread of the stem. Rotate the (B) No Sweat Test Cap until you obtain "Hand Tight Engagement".

(NOTE: No wrench or hammer required).

4. Once you have threaded the (B) No Sweat Test Cap to hand tight engagement, rotate the (C) large winged nut located on the (D) center bolt until hand tight.

(NOTE: By rotating the (C) center wing nut the (A) internal expandable rubber plug will expand to create the seal on the inside of the fitting. Do not be concerned about over or under tightening the rubber plug (A). Once testing is started the rubber plug (A) will continue to expand to ensure a complete seal for testing).

5. Repeat the process on the other end of the hose assembly.
6. Assembly is now ready to test.
7. Before beginning removal of (B) test caps, be sure all test pressure is released and gage reads "0".
8. Once testing is complete, first loosen the (C) center wing nut.
9. Once the (C) center wing nut is loosened, you may need to grab the center bolt (D) by hand and give it a shake or two. The reason being is that it will help to release the seal on the internal expandable rubber plug (A) and allow you to unscrew the test cap assembly easily.
10. Unscrew the No Sweat Test Caps (B) from tested hose assembly.

FINAL NOTES: All standard No Sweat Test Caps are designed to work with Schedule 40 Style Stems. Stems made from heavier or thinner wall pipe will require special test caps. Pricing and availability for special test caps are available upon request. Maximum test pressure rating on all sized No Sweat Test Caps is 1,000 PSI.

WARNING!

FOR PROPER OPERATION, TEST CAPS MUST BE ASSEMBLED AS SHOWN. FAILURE TO PROPERLY REASSEMBLE TEST CAPS AS SHOWN MAY RESULT IN UNSAFE OPERATION OR TEST CAP FAILURE.

WWW.MARIOMFG.COM

Phone 337.534.4215 | Fax 337.534.4216 | 843 STEWART STREET, LAFAYETTE LA 70501

MARIO
INDUSTRIAL HOSE INNOVATIONS

QUICK TESTING PROGRAM

150# TEST FLANGES

PATENT PENDING

GOES ON QUICK & EASY

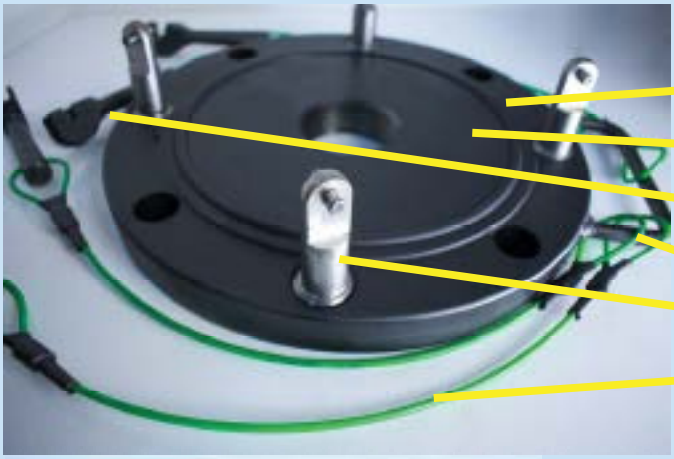
PAYS FOR ITSELF

SIMPLE TO LEARN, TEACH & TROUBLEHSOOT

Sizes 2", 3", 4", 6" & 8" in stock or in production due to high demand.

NO SWEAT®

The best way to get started is to contact our office and set-up what we call the "Dog & Pony Show". We come out to your place and demonstrate to your people the WHY and HOW of the benefits of the NO SWEAT principles from top to bottom. From fitting to hose insertion to crimping to testing to excellence and savings. INSTRUCTIONS & CONTACT INFO ON PAGE 2



DIAGRAM

A. O-ring
B. Face of test flange
C. Cam levers
D. Handle
E. Adjustment studs
F. Cables

NO SWEAT®

INSTRUCTIONS

1. Clean the face of the flange to be tested and the face of the No Sweat Test Flange (B). Ensure the O-ring (A) is secure and undamaged, replace if heavily worn before proceeding.

2. Attached to the handle (D) are (4) cables (F) retaining cam levers (C). Slide (2) cables (F) to each side of the handle (D). This allows for (2) cam levers (C) to hang on each side of the test flange when picked up by the handle(D).

3. Lift the test flange using the handle (D) and align the (4) adjustment studs (E) of the test flange with the holes of the hose flange. Slide studs (E) through the hose flange hose until both flange faces touch.

4. Locate the (2) adjustment studs (E) closest to the 3 and 9 o'clock positions. Using (1) cam lever (C) from each side of the test flange, align the cam levers (C) parallel to the body of the hose, slide the slotted groove of the cam lever (C) over the 1/4" hardened pin of the adjustment studs (E). Now rotate both cam levers (C) down simulateously towards the back face of the flange until they reach a 90 degree angle from the body of the hose.

NOTE:

4a. As you fold the cam levers (C) towards the back face of the flange, you must meet resistance. If the cam lever (C) freely folds it will not compress the O-ring (A) sufficiently for testing.

4b. In the case of lack of resistance and compression, lift the cam levers (C) to release the adjustment studs (E). Then rotate the adjustment stud or studs (E) clockwise by 1/2 of a turn. Repeat Steps 4, 4a and 4b until the desired resistance and compression of O-ring (A) is achieved for proper seal.

4c. If the hose tester is not able to fold cam levers (C) to the 90 degree position, it is acceptable to tap the cam lever (C) once or twice with a wooden block or dead blow hammer.

DO NOT USE A METAL HAMMER OR MALLET, DO NOT FORCE THE CAM LEVER PAST 90 DEGREES!

5. Locate the remaining (2) cam levers and repeat Steps 4, 4a and 4b at the 12 and 6 o'clock positions.

6. Once all (4) cam levers are locked down at 90 degrees to the body of the hose, proceed with testing as needed.

MAXIMUM TEST PRESSURE RATING ON ALL SIZE NO SWEAT TEST FLANGES IS 600 PSI. FAILURE TO PROPERLY ASSEMBLE NO SWEAT TEST FLANGES AS SHOWN MAY RESULT IN UNSAFE OPERATION OR TEST FLANGE FAILURE.

WWW.MARIOMFG.COM

Phone 337.534.4215 | Fax 337.534.4216 | 843 STEWART STREET, LAFAYETTE LA 70501

NO SWEAT®

Testing multiple assemblies at once just got super easy.

PATENT PENDING

DOUBLE SIDED TEST FLANGE

WWW.MARIOMFG.COM

Phone 337.534.4215 | Fax 337.534.4216 | 843 STEWART STREET, LAFAYETTE LA 70501

NO SWEAT®

Testing multiple assemblies at once just got super quick.

PATENT PENDING

DOUBLE SIDED TEST FLANGE

WWW.MARIOMFG.COM

Phone 337.534.4215 | Fax 337.534.4216 | 843 STEWART STREET, LAFAYETTE LA 70501

MARIO
INDUSTRIAL HOSE INNOVATIONS

Crimp Program

25 % Compression

DISCLAIMER

*** The attached crimp compression is based on sample generic rubber and chemical hose testing. Compression % listed is meant to be generic for MMI Couplings. Compression % may need to be adjusted for specific brand hoses and applications. These charts are meant for the exclusive use of MMI customers using MMI crimping systems with MMI fittings. These charts do not allow for use with other coupling manufacturers products. Final crimp compression is the responsibility of the individual user. ***

NAHAD
THE ASSOCIATION FOR HOSE AND ACCESSORIES DISTRIBUTION

HOSE SAFETY INSTITUTE.org
Committed to Hose Assembly Safety, Quality & Reliability

MARIO
INDUSTRIAL HOSE INNOVATIONS

	E			A		B		C		D
	Ferrule	Hose	Ferrule	Gold	Style	Hose		No Sweat	Style	Hose
Part#	Wall	Size	ID	From	To	ID		From	To	ID
F200-AA	0.120	2"	2.625	2-18/64"	2-34/64"	2.032		2-18/64"	2-36/64"	2.00
F200-A	0.120	2"	2.750	2-20/64"	2-42/64"	2.032		2-20/64"	2-44/64"	2.00
F200-B	0.120	2"	2.875	2-34/64"	2-50/64"	2.032		2-34/64"	2-52/64"	2.00
F200-C	0.120	2"	3.000	2-42/64"	2-58/64"	2.032		2-42/64"	2-60/64"	2.00
F200-D	0.120	2"	3.125	2-50/64"	3-2/64"	2.032		2-50/64"	3-4/64"	2.00
F250-A	0.120	2-1/2"	3.250	2-58/64"	3-10/64"	2.532		2-58/64"	3-12/64"	2.50
F250-B	0.120	2-1/2"	3.375	3-2/64"	3-18/64"	2.532		3-2/64"	3-20/64"	2.50
F250-C	0.120	2-1/2"	3.500	3-10/64"	3-26/64"	2.532		3-10/64"	3-28/64"	2.50
F250-D	0.120	2-1/2"	3.625	3-18/64"	3-34/64"	2.532		3-18/64"	3-36/64"	2.50
F300-AA	0.120	3"	3.625	3-20/64"	3-36/64"	3.032		3-20/64"	3-38/64"	3.00
F300-A	0.120	3"	3.750	3-26/64"	3-42/64"	3.032		3-26/64"	3-44/64"	3.00
F300-B	0.120	3"	3.875	3-34/64"	3-50/64"	3.032		3-34/64"	3-52/64"	3.00
F300-C	0.120	3"	4.000	3-42/64"	3-58/64"	3.032		3-42/64"	3-60/64"	3.00
F300-D	0.188	3"	4.125	3-50/64"	4-2/64"	3.032		3-50/64"	4-4/64"	3.00
F300-E	0.120	3"	4.250	3-58/64"	4-10/64"	3.032		3-58/64"	4-12/64"	3.00
F300-F	0.188	3"	4.375	4-2/64"	4-18/64"	3.032		4-2/64"	4-20/64"	3.00
F400-AA	0.120	4"	4.750	4-26/64"	4-42/64"	4.032		4-26/64"	4-44/64"	4.00
F400-A	0.188	4"	4.875	4-34/64"	4-50/64"	4.032		4-34/64"	4-52/64"	4.00
F400-B	0.120	4"	5.000	4-42/64"	4-58/64"	4.032		4-42/64"	4-60/64"	4.00
F400-C	0.188	4"	5.125	4-50/64"	5-2/64"	4.032		4-50/64"	5-4/64"	4.00
F400-D	0.120	4"	5.250	4-58/64"	5-10/64"	4.032		4-58/64"	5-12/64"	4.00
F400-E	0.188	4"	5.375	5-2/64"	5-18/64"	4.032		5-2/64"	5-20/64"	4.00
F500-AA	0.120	5"	5.750	5-17/64"	5-41/64"	5.047		5-17/64"	5-44/64"	5.00
F500-A	0.219	5"	6.187	5-33/64"	6-5/64"	5.047		5-33/64"	6-8/64"	5.00
F500-B	0.188	5"	6.250	5-49/64"	6-9/64"	5.047		5-49/64"	6-12/64"	5.00
F500-C	0.188	5"	6.375	5-57/64"	6-17/64"	5.047		5-57/64"	6-20/64"	5.00
F600-AA	0.188	6"	7.125	6-41/64"	7-1/64"	6.047		6-41/64"	7-4/64"	6.00
F600-A	0.188	6"	7.250	6-46/64"	7-9/64"	6.047		6-46/64"	7-12/64"	6.00
F600-B	0.188	6"	7.375	6-57/64"	7-17/64"	6.047		6-57/64"	7-20/64"	6.00
F600-C	0.250	6"	7.500	7-1/64"	7-25/64"	6.047		7-1/64"	7-28/64"	6.00
F600-D	0.250	6"	7.531	7-3/64"	7-27/64"	6.047		7-3/64"	7-30/64"	6.00
F600-E	0.250	6"	7.750	7-17/64"	7-41/64"	6.047		7-17/64"	7-44/64"	6.00
F600-F	0.250	6"	7.875	7-25/64"	7-49/64"	6.047		7-25/64"	7-52/64"	6.00
F600-G	0.250	6"	8.000	7-33/64"	7-57/64"	6.047		7-33/64"	7-60/64"	6.00
F600-H	0.250	6"	8.125	7-41/64"	8-1/64"	6.047		7-41/64"	8-4/64"	6.00
F600-I	0.250	6"	8.250	7-49/64"	8-9/64"	6.047		7-49/64"	8-12/64"	6.00
F800-AA	0.250	8"	9.500	8-30/64"	9-25/64"	8.047		8-30/64"	9-28/64"	8.00
F800-A	0.250	8"	9.625	9"	9-33/64"	8.047		9"	9-36/64"	8.00
F800-B	0.250	8"	9.750	9-17/64"	9-41/64"	8.047		9-17/64"	9-44/64"	8.00
F800-C	0.250	8"	9.875	9-25/64"	9-49/64"	8.047		9-25/64"	9-52/64"	8.00
F800-D	0.250	8"	10.000	9-33/64"	9-57/64"	8.047		9-33/64"	9-60/64"	8.00
F800-E	0.250	8"	10.125	9-41/64"	10-1/64"	8.047		9-41/64"	10-4/64"	8.00
NS300-UHMW PLUS										
F200-B	0.120	2"	2.875					2-30/64"	2-52/64"	2.00
F300-A	0.120	3"	3.750					3-20/64"	3-44/64"	3.00
F400-A	0.120	4"	4.875					4-33/64"	4-54/64"	4.00
F600-AA	0.170	6"	7.188					6-40/64"	7-8/64"	6.00
F600-C	0.150	6"	7.641					7-24/64"	7-41/64"	6.00

NAHAD
HOSE SAFETY INSTITUTE.org
Committed to Hose Assembly Safety, Quality & Reliability

Date 12/26/16

MARIO
INDUSTRIAL HOSE INNOVATIONS

Decimals By 1/64"

1/64"	0.016		17/64"	0.266		33/64"	0.515	49/64"	0.766
2/64"	0.031		18/64"	0.281		34/64"	0.531	50/64"	0.781
3/64"	0.047		19/64"	0.297		35/64"	0.547	51/64"	0.797
4/64"	0.063		20/64"	0.313		36/64"	0.563	52/64"	0.813
5/64"	0.078		21/64"	0.328		37/64"	0.578	53/64"	0.828
6/64"	0.094		22/64"	0.344		38/64"	0.594	54/64"	0.844
7/64"	0.109		23/64"	0.360		39/64"	0.609	55/64"	0.860
8/64"	0.125		24/64"	0.375		40/64"	0.625	56/64"	0.875
9/64"	0.141		25/64"	0.391		41/64"	0.641	57/64"	0.891
10/64"	0.156		26/64"	0.406		42/64"	0.656	58/64"	0.906
11/64"	0.172		27/64"	0.422		43/64"	0.672	59/64"	0.922
12/64"	0.188		28/64"	0.438		44/64"	0.688	60/64"	0.938
13/64"	0.203		29/64"	0.453		45/64	0.703	61/64"	0.953
14/64"	0.219		30/64"	0.469		46/64"	0.718	62/64"	0.969
15/64"	0.234		31/64"	0.484		47/64"	0.734	63/64"	0.984
16/64"	0.250		32/64"	0.500		48/64"	0.750	64/64"	1.000

Crimp Calculation Formulas:

Gold Style:

A	Hose OD	
B	Minus Hose ID	
	Equals Total Hose Wall	
F	Times Required Compression	
	Equals Compressed Hose Wall	
E	Plus Total Ferrule Wall Times 2	
B	Plus Hose ID	
	Equals Crimp Diameter	

No Sweat Style:

C	Hose OD	
D	Minus Hose ID	
	Equals Total Hose Wall	
F	Times Required Compression	
	Equals Compressed Hose Wall	
E	Plus Total Ferrule Wall Times 2	
C	Plus Hose ID	
	Equals Crimp Diameter	

"F" Compression Mulitpliers	
20%	0.8
22%	0.78
25%	0.75
30%	0.7

NAHAD
THE ASSOCIATION FOR HOSE AND ACCESSORIES DISTRIBUTION

HOSE SAFETY INSTITUTE.org
Committed to Hose Assembly Safety, Quality & Reliability

Crimp Procedures: (Shop Personnel Version)

- **Preparation**
  - Assembly Length
    - Cut to length: Cut hose to requested length (Do not include length of fittings)
    - O.A.L. (Overall Length): Reduce cut length of hose by the "Head Length" of couplings (i.e. Head Length is the part of coupling which does not insert into hose ID)
  - Hose end must be cut "as square as" possible using hose knife or abrasive saw
  - Clean Hose End: Remove all debris from inside of hose by hand or with cloth or paper wiper (i.e. abrasion and or rubber residue left from cutting process)
- **Static Grounding When Required:**

  External Style Crimp Coupling
  - Use hose knife to release about 1" long of any helical wires from hose body
  - Using pliers bend all helical wires into inside the hose and parallel with the body of hose
  - Minimum of ¾" of each wire must come in contact with body of stem once crimped

  Internal Expanded Style Coupling
  - Use same procedure except bend helical wires outside and parallel with the body of hose
  - If Static Grounding is not required trim wire flush with face of hose to reduce safety hazards
- **Coupling Selection**
  - Measure OD of each end of hose with a 1/64" or 100th diameter tape
    - Another option is to measure wall thickness of hose in 3 or 4 places and average the wall thickness. This method is best method when dealing with corrugated style hose
  - Mark the measured OD on hose end using paint stick or another permanent style marker
  - Using current Coupling Mfg. literature, select the correct size sleeve or ferrule for the hose OD just measured
- **Installation of Coupling**

  General
  - When using "1-piece style couplings" (i.e. ferrule or sleeve is attached to stem) Place coupling next to hose to simulate coupling being fully inserted into the hose
  - Place permanent mark on hose od corresponding with edge of the ferrule or sleeve ***This mark is used to verify that coupling is fully inserted into hose***
  - When using "2-piece style coupling" (i.e. ferrule or sleeve and stem are separate components) no mark is needed

Coupling Insertion

1-piece style couplings

- Lubricate hose ID if needed
- Push selected coupling into hose using hand, rubber mallet or coupling inserter as needed till the ferrule reaches the mark made on hose OD

2-piece style couplings

- Lubricate hose ID if needed
  - When using a straight crimp sleeve, first slide the sleeve over OD of hose past the area where fitting will be inserted
  - When using a coupling style with an interlocking groove, first slide the interlocking ferrule over the OD of the hose as far as possible.
- Push stem into hose using hand, rubber mallet or coupling inserter as needed till hose covers the entire length of coupling shank
  - When using a Retaining Ring Style Stem, lubricate the hose as needed. Then insert the stem into hose by hand, rubber mallet or coupling inserter
  - Once the stem is fully inserted into the hose, slide the matching ferrule over the wrench area of the stem till it contact the welded retaining ring

- **Crimping of Coupling**
  - Retrieve Hose OD as marked on hose OD to determine crimp diameter
  - Referring to Coupling Manufacturing Specifications determine crimp diameter for the hose end to be crimped
  - "Punch in" recommended crimp diameter into Crimper Control
  - Install the recommended die set into crimp head from Crimper Control
  - Fully open crimp head for clearance
  - Place ferrule or sleeve to be crimped into crimp head aligning with dies as needed
  - Jog crimp head closed till the dies touch OD of sleeve or ferrule
  - Adjust hose to align coupling as needed with interlock groove or face of hose
  - Once aligned crimp to preset crimp diameter
  - Dwell, or hold, the finished crimp diameter for 3 to 5 seconds. This allows the metal to retain its new diameter.
  - Jog open crimp head only till hose coupling is free to move
  - Rotate coupling ½ width of the die
  - Crimp again as relocated (Recommended for best results)
  - Once re-crimp is complete fully open crimp head
  - Remove from crimp machine
  - Verify recommended crimp diameter using 1/64" or 100th hose OD tape
  - Tolerance is to be ±1/64" or .01 diameter from published crimp diameter
  - If finished crimp diameter is larger than tolerance re-crimp to correct. If crimp diameter is smaller than tolerance cut off and replace coupling

Generic or General Definitions:

Stem-Part which is inserted into the ID of hose. There are basically 3 styles of stems

- Straight body stem which does not interlock with the sleeve or ferrule
- Interlocking groove stem which has a machined ring groove on its OD which when aligned with the ferrule interlocks the ferrule and stem once crimped
- Retaining ring style stem comes with an oversize welded ring on the OD. This ring is meant to retain the ferrule once you slide the ferrule over the welded ring and crimp to OD of the hose

Serrations-Part of the stem which contains serrations and is inserted inside of hose body

Sleeve-Generally refers to a straight metal pipe which slides over the OD of hose and is crimped full length over hose and stem to create retention and seal on the hose

Ferrule-Generally refers to a metal pipe which is rolled over on one end reducing the ID of the pipe. Ferrules generally have serrations machined internally to assistant with retention

Interlocking Ferrule-A ferrule which is matched with a stem which has an external groove machined so as to interlock with ferrule as it is being crimped

Retaining Ring Style Ferrule-A ferrule which is matched with a stem which has an oversized metal ring welded on its OD. This style ferrule slides over the OD of the wrench area of the stem over the OD of the hose.

Coupling-Generally refers to the combination of a stem (inserted into ID of hose) and sleeve or ferrule (which slides over the OD of hose) or a one-piece style part which is made of a stem and ferrule permanently attached to each other. This is normally done by welding, staking or threading

MARIO
INDUSTRIAL HOSE INNOVATIONS

Instruction for installing No Sweat Hose Lifters and Limit Clamp:

Date 10/2017

Picture 1: Shows 2-part fitting (i.e. Gold Style Hose Lift Stem and Gold Ferrule)

Picture 2: Shows ferrule in place ready for crimping to hose

Picture 3: After the ferrule is crimped to hose and the assembly has been tested and approved, Hose Lifter slides over neck of stem with the vertical loop facing towards the connector end of stem until it rests on the face of the ferrule. Note, the vertical loop can go facing down toward the hose if needed for clearance. It can work either way. The loop facing toward the connector end of stem ensures the connector end of the assembly will face skyward while being lifted.

Picture 4: The 2 halves of the Hose Lift Limit Clamp are then placed one on each side into the Limit Clamp Groove on the neck of the stem. One bolt is placed on each facing in opposing directions. The Teflon style self-locking nut is then tighten down till the Hose Lift Limit Clamp is tight against bottom of groove ensuring it is aligned with and locked into the groove of the stem.

Picture 5: Shows top view of Hose Lift Limit Clamp as it is located during tightening.

Hose Lifter and stem are now ready for use.

(2)

(1)

3

4

5

WWW.MARIOMFG.COM
Phone 337.534.4215 | Fax 337.534.4216 | 843 STEWART STREET, LAFAYETTE LA 70501

CORRECT HOSE LIFTING

*Rope used for depiction only, please follow all laws, rules & regulations for the jurisdiction you are in.

INCORRECT HOSE LIFTING