M ^e Donald	>

IMPORTANT NOTICE - READ CAREFULLY Installation Instructions Mac-Pak Compression Connects (-22, -33, -34, -44)

		The A.Y. McDonald Mac-Pak materials (copper, brass, ste The simple steps listed below will	el, or plastic).			e or tube size service
1.	Use a tube or pip	e cutter to assure a square en e of nicks.	d. Make sure pipe is rou	und. On copper tubing,us	se a rounding tool, if nec	essary. Surface should
2.		ERS MUST BE USED ON FLEXIE				
3.		through the nut and into the		0		ay not have a stop).
4. 5.		appears too large or small, a ch Pak nut onto the valve or fitting		, 0	0 11	not affect connections.
		20 ftlbs. 35 ftlbs.			1" size 2" & 2 1/2" sizes	
6.		pe into the nut by securely tighte , and polyethylene tubing, the t				
		70-80 inIbs. 120-140 inIbs.	3/4" size 1 1/2" size		1" size 2" & 2 1/2" sizes	
For	hard copper tubin	g, brass and steel pipe, the tor	ques to which the clamp	side screw should be tig	htened to are as follows (N	NOTE CHANGE IN UNITS):
		70-80 inIbs. 80-95 inIbs.	3/4" size 1 1/2" size		1" size 2" & 2 1/2" sizes	
7. 8.		FOR LEAKS BEFORE BACKFILL LD WATER SERVICES.	ING.			(OVER)
	WARNING: It is u	nlawful in CALIFORNIA & VERMONT	(effective 1/1/2010): MAR	YLAND (effective 1/1/2012)	: LOUISIANA (effective 1/1/2	013) and the UNITED STATES

WARNINS: It is unlawful in CALIFORNIA & VERMONT (effective 1/1/2010); MARYLAND (effective 1/1/2012); LOUISIANA (effective 1/1/2013) and the UNITED STATES OF AMERICA (effective 1/4/2014) to use any product in the installation or repair of any public water system or any plumbing in a facility or system that provides water for human consumption if the wetted surface area of the product has a weighted average lead content greater than 0.25%. This prohibition does not extend to service saddles used in California, Louisiana or under USA Public Law 111-380.

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M ^s Don		ce - read carefully Compression Connects (·	Installation Instructions -22, -33, -34, -44)
	materials (copper, brass, st	compression system is a simple, convenient me eel, or plastic). Il make your job easier and assure fast, safe and waterti	
		nd. Make sure pipe is round. On copper tubing,	use a rounding tool, if necessary. Surface should
	id free of nicks. FFENERS MUST BE USED ON FLEXI	IBLE PLASTIC SERVICE TUBE OR PIPE.	
3. Stab tube o	r pipe through the nut and into the	e socket of the valve or fitting until it bottoms of	ut (some fittings may or may not have a stop).
		heck should be made to be sure you are using the c	
-			g nut by 10-20 ftlbs. will not affect connections.
	ze20 ftlbs. size35 ftlbs.	3/4" size25 ftlbs. 1 1/2" size40 ftlbs.	1" size
6. Lock the tub	e or pipe into the nut by securely tigh	tening the split clamp side screw (use a box end or torques to which the clamp side screw should be	socket wrench, not a screwdriver). For soft copper,
	ze70-80 inIbs. size120-140 inIbs.	3/4" size80-90 inIbs. 1 1/2" size160-180 inIbs.	1" size90-100 inIbs. 2" & 2 1/2" sizes200-220 inIbs.
For hard copper	tubing, brass and steel pipe, the to	orques to which the clamp side screw should be ti	ghtened to are as follows (NOTE CHANGE IN UNITS):
	ze70-80 inIbs. size80-95 inIbs.	3/4" size	1" size65-80 inIbs. 2" & 2 1/2" sizes200-220 inIbs.
	TEST FOR LEAKS BEFORE BACKFIL In Cold Water Services.	LING.	(OVER)
water for human	CA (effective 1/4/2014) to use any pro-	duct in the installation or repair of any public water sy of the product has a weighted average lead content gre	P): LOUISIANA (effective 1/1/2013) and the UNITED STATE stem or any plumbing in a facility or system that provide ater than 0.25%. This prohibition does not extend to servi-

M: Donald

IMPORTANT NOTICE - READ CAREFULLY	Installation Instructions
Mac-Pak Compression Connects (-22, -33,	-34, -44)



The A.Y. McDonald Mac-Pak compression system is a simple, convenient method of connection for pipe or tube size service materials (copper, brass, steel, or plastic).

The simple steps listed below will make your job easier and assure fast, safe and watertight connections:

- 1. Use a tube or pipe cutter to assure a square end. Make sure pipe is round. On copper tubing, use a rounding tool, if necessary. Surface should be clean and free of nicks.
- 2. INSERT STIFFENERS MUST BE USED ON FLEXIBLE PLASTIC SERVICE TUBE OR PIPE.
- 3. Stab tube or pipe through the nut and into the socket of the valve or fitting until it bottoms out (some fittings may or may not have a stop).
- 4. If the nut or socket appears too large or small, a check should be made to be sure you are using the correct fitting and pipe/tube.
- 5. Tighten the Mac-Pak nut onto the valve or fitting to the following minimum torques. Overtorquing nut by 10-20 ft.-lbs. will not affect connections.

		20 ftIbs. 35 ftIbs.				
6.				ide screw (use a box end or so amp side screw should be ti		rewdriver). For soft copper, vs (NOTE CHANGE IN UNITS):
	-,	70-80 inIbs. 120-140 inIbs.	•. • •-=•			90-100 inIbs. 200-220 inIbs.
For	r hard copper tubing, bra	ass and steel pipe, the to	rques to which the clai	np side screw should be tig	htened to are as follo	ws (NOTE CHANGE IN UNITS):
	1/2" size	70-80 inIbs.	3/4" size	80-90 inIbs.	1" size	65-80 inIbs.

PRESSURE TEST FOR LEAKS BEFORE BACKFILLING.
 USE ONLY ON COLD WATER SERVICES.

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1. 2. 3. 4. 5.

6.

IMPORTANT NOTICE - READ CAREFULLY Installation Instructions Mac-Pak Compression Connects (-22, -33, -34, -44)

	The A.Y. McDonald Mac-Pak co materials (copper, brass, steel The simple steps listed below will m	, or plastic).	,		tube size service
Use a tube or pipe	cutter to assure a square end	. Make sure pipe is round. Or	n copper tubing,use	a rounding tool, if necessa	ary. Surface should
be clean and free	••••••••				
INSERT STIFFENE	RS MUST BE USED ON FLEXIBL	E PLASTIC SERVICE TUBE OF	R PIPE.		
Stab tube or pipe	through the nut and into the so	ocket of the valve or fitting u	ntil it bottoms out (some fittings may or may r	10t have a stop).
If the nut or socket a	appears too large or small, a cheo	k should be made to be sure yo	ou are using the corre	ct fitting and pipe/tube.	
Tighten the Mac-Pa	ak nut onto the valve or fitting t	o the following minimum torq	ues. Overtorquing n	ut by 10-20 ftlbs. will not	affect connections.
	20 ftlbs. 35 ftlbs.	3/4" size 1 1/2" size			
	e into the nut by securely tighten and polyethylene tubing, the tor				
	70-80 inIbs. 120-140 inIbs.	3/4" size 1 1/2" size16		1" size 2" & 2 1/2" sizes2	

8. USE ONLY ON COLD WATER SERVICES.

(OVER)

(OVER)

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A.Y. M[®]Donald waterworks products are designed for reliable service. Like all brass products, however, they can be damaged by improper handling and use.

CAUTIONS

- 1. Protect threads. Avoid loose fitting wrenches. Do not drop or impact.
- 2. Use extra care with high water pressures (over 100 PSIG) and pipe or tubing over 1". Consult factory if desired.
- Inspect and test all joints, valves and fittings before backfilling.
- 4. Backfill carefully so as to avoid damage to the service line and connections. Looping of the service lines is recommended to minimize strain.
- 5. DO NOT use Vaseline®, plumber's grease, or any other petroleum based product on seals or o-rings

A.Y. McDonald Mac-Pak Coding System

All A.Y. McDonald Mac-Pak fittings are coded to identify which type of service material they are designed to fit. Lettering is on the Mac-Pak nut.

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	Damage caused by improper use	e and/or handling will void our warranty.	(Over)
- PVC	Brass pipe * Was marked IPS until	l 2/02 & PEP Until 2017	
- IP & PVC		PEP fittings only work for part of the range of the standard. Reference A. Y. McDonald O.D. charts dated 2007 or later for more info	rmation.
- CTS	Copper tube, soft or hard(Type K or L) PE tube per ASTM D2737 SDR 9 ONLY PB tube per ASTM D2666 SDR 9 Class 250 ONLY	 *PEP-7PE pipe per ASTM D2239 SIDR 7 ONLY (Partial Range) *PEP-7PB pipe per ASTM D2662 SIDR 7 Class 250 ONLY (Partial Pep-9PE pipe per ASTM D2239 SIDR 9 ONLY - Established 20 	ial Range)
- CTS	Copper tube, soft or hard(Type K or L)	- *PEP-7PE pipe per ASTM D2239 SIDR 7 ONLY (Partial Range)	



Installation Instructions **IMPORTANT NOTICE - READ CAREFULLY**

Mac-Pak Compression Connects (-22, -33, -34, -44)

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- CTS PI	opper tube, soft or hard(Type K or L) E tube per ASTM D2737 SDR 9 ONLY 3 tube per ASTM D2666 SDR 9 Class 250 ONLY	 *PEP-7PE pipe per ASTM D2239 SIDR 7 ONLY (Partial Range *PEP-7PB pipe per ASTM D2662 SIDR 7 Class 250 ONLY (Pa PEP-9PE pipe per ASTM D2239 SIDR 9 ONLY - Established 2 	rtial Range)
- IP & PVC St		PEP fittings only work for part of the range of the standard. Reference A. Y. McDonald O.D. charts dated 2007 or later for more inf	ormation.
- PVC Bi Da	* Was marked IPS until 2	2/02 & PEP Until 2017 and/or handling will void our warranty.	(Over)
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A.Y. M[®]Donald waterworks products are designed for reliable service. Like all brass products, however, they can be damaged by improper handling and use.

CAUTIONS

- 1. Protect threads. Avoid loose fitting wrenches. Do not drop or impact.
- 2. Use extra care with high water pressures (over 100 PSIG) and pipe or tubing over 1". Consult factory if desired.
- 3. Inspect and test all joints, valves and fittings before backfilling.
- 4. Backfill carefully so as to avoid damage to the service line and connections. Looping of the service lines is recommended to minimize strain.
- 5. DO NOT use Vaseline[®], plumber's grease, or any other petroleum based product on seals or o-rings

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All A.Y. McDonald Mac-Pak fittings are coded to identify which type of service material they are designed to fit. Lettering is on the Mac-Pak nut.

- CTS	Copper tube, soft or hard(Type K or L) PE tube per ASTM D2737 SDR 9 ONLY PB tube per ASTM D2666 SDR 9 Class 250 ONLY	- *PEP-7PE pipe per ASTM D2239 SIDR 7 ONLY (Partial Ran - *PEP-7PB pipe per ASTM D2662 SIDR 7 Class 250 ONLY (F - PEP-9PE pipe per ASTM D2239 SIDR 9 ONLY - Establishe	Partial Range)
- IP & PVC	PVC pipe per ASTM D1785 Steel pipe Brass pipe * Was marked IPS until	PEP fittings only work for part of the range of the standard. Reference A. Y. McDonald O.D. charts dated 2007 or later for more i 2/02 & PEP Until 2017	nformation.
	Damage caused by improper use	and/or handling will void our warranty.	(Over)
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IMPORTANT NOTICE - READ CAREFULLY

Installation Instructions

Mac-Pak Compression Connects (-22, -33, -34, -44)

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A.Y. McDonald Mac-Pak Coding System

All A.Y. McDonald Mac-Pak fittings are coded to identify which type of service material they are designed to fit. Lettering is on the Mac-Pak nut

- CTSCopper tube, soft or hard(Type K or L) - CTSPE tube per ASTM D2737 SDR 9 ONLY - CTSPB tube per ASTM D2666 SDR 9 Class 250 ONLY	- *PEP-7PE pipe per ASTM D2239 SIDR 7 ONLY (Partial Range) - *PEP-7PB pipe per ASTM D2662 SIDR 7 Class 250 ONLY (Partial Range) - PEP-9PE pipe per ASTM D2239 SIDR 9 ONLY - Established 2017			
- PVC PVC pipe per ASTM D1785 - IP & PVC Steel pipe	PEP fittings only work for part of the range of the standard. Reference A. Y. McDonald O.D. charts dated 2007 or later for more information.			
* Was marked IPS until 2/02 & PEP Until 2017 Damage caused by improper use and/or handling will void our warranty. (0ver)				

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