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

		The A.Y. McDonald Mac-Pak materials (copper, brass, stu The simple steps listed below wil	compression system is eel, or plastic). I make your job easier and a	a simple, convenient met issure fast, safe and watertig	thod of connection for pip	e or tube size service
1.	Use a tube or pip	e cutter to assure a square e	nd. Make sure pipe is ro	und. On copper tubing,u	se a rounding tool, if ne	cessary. Surface should
2.	INSERT STIFFEN	ERS MUST BE USED ON FLEXI	BLE PLASTIC SERVICE 1	UBE OR PIPE.		
3.	Stab tube or pipe	e through the nut and into the	socket of the valve or f	itting until it bottoms ou	t (some fittings may or n	nay not have a stop).
4.	If the nut or socke	t appears too large or small, a cl	neck should be made to b	e sure you are using the co	rrect fitting and pipe/tube.	
5.	Tighten the Mac-	Pak nut onto the valve or fittin	g to the following minim	um torques. Overtorquing	g nut by 10-20 ftlbs. wil	I not affect connections.
	1/2" size 1 1/4" size	20 ftIbs. 	3/4" size 1 1/2" size	25 ftIbs. 40 ftIbs.	1" size 2" & 2 1/2" sizes	30 ftlbs. 45 ftlbs.
6.	Lock the tube or p PVC, polybutylene	ipe into the nut by securely tight e, and polyethylene tubing, the	ening the split clamp sid torques to which the clar	e screw (use a box end or s np side screw should be t	ocket wrench, not a screw ightened are as follows (N	driver). For soft copper, IOTE CHANGE IN UNITS):
	1/2" size 1 1/4" size	70-80 inlbs. 120-140 inlbs.	3/4" size 1 1/2" size		1" size 2" & 2 1/2" sizes	90-100 inlbs. 200-220 inlbs.
Fo	r hard copper tubir	ig, brass and steel pipe, the to	rques to which the clam	o side screw should be tig	htened to are as follows	(NOTE CHANGE IN UNITS):
	1/2" size 1 1/4" size		3/4" size 1 1/2" size		1" size 2" & 2 1/2" sizes	65-80 inlbs. 200-220 inlbs.
7. 8.	PRESSURE TEST USE ONLY ON CO	FOR LEAKS BEFORE BACKFIL LD WATER SERVICES.	LING.			(OVER)
	WADNING. It is u	nlowful in CALLENDNIA & VEDMON	T (offective 1/1/2010), MA	DVI AND (offective 1/1/2012). I OIIISIANA (effective 1/1/	2012) and the UNITED STATE

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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Mº Don	IMPORTANT NOTION	ce - read carefully Compression Connects (·	Installation Instructions -22, -33, -34, -44)
	The A.Y. McDonald Mac-Pak materials (copper, brass, st The simple steps listed below wi	compression system is a simple, convenient me eel, or plastic). Il make your job easier and assure fast, safe and waterti	thod of connection for pipe or tube size service
1. Use a tube	or pipe cutter to assure a square e	nd. Make sure pipe is round. On copper tubing,	use a rounding tool, if necessary. Surface should
2. INSERT STI	.a 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).
4. If the nut or	socket appears too large or small, a c	heck should be made to be sure you are using the c	prrect fitting and pipe/tube.
5. Tighten the	Mac-Pak nut onto the valve or fittin	g to the following minimum torques. Overtorquin	g nut by 10-20 ftlbs. will not affect connections.
1/2" si 1 1/4"	ze20 ftlbs.	3/4" size	1" size
6. Lock the tub PVC, polybu	e or pipe into the nut by securely tigh tylene, and polyethylene tubing, the	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, ightened are as follows (NOTE CHANGE IN UNITS):
1/2" si 1 1/4"	ze70-80 inlbs. size120-140 inlbs.	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):
1/2" si 1 1/4"	ze70-80 inIbs. size80-95 inIbs.	3/4" size	1" size65-80 inIbs. 2" & 2 1/2" sizes200-220 inIbs.
7. PRESSURE 8. USE ONLY (TEST FOR LEAKS BEFORE BACKFIL In Cold Water Services.	LING.	(OVER)
WARNING: OF AMERI water for human saddles used in (It is unlawful in CALIFORNIA & VERMON CA (effective 1/4/2014) to use any pro- consumption if the wetted surface area (alifornia Louisiana or under USA Public	IT (effective 1/1/2010); MARYLAND (effective 1/1/2012 duct in the installation or repair of any public water sy of the product has a weighted average lead content gre 1 aw 111-380	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.

	1/2" size 1 1/4" size	20 ftIbs. 35 ftIbs.	3/4" size 1 1/2" size	25 ftlbs. 40 ftlbs.	1" size 2" & 2 1/2" sizes	
6.	Lock the tube or pipe in PVC, polybutylene, and	to the nut by securely tight polyethylene tubing, the	tening the split clamp s torques to which the cla	ide screw (use a box end or so amp side screw should be ti	ocket wrench, not a sc ghtened are as follow	rewdriver). For soft copper, s (NOTE CHANGE IN UNITS):
	1/2" size 1 1/4" size	70-80 inIbs. 120-140 inIbs.	3/4" size 1 1/2" size	80-90 inlbs. 160-180 inlbs.	1" size 2" & 2 1/2" sizes	90-100 inlbs. 200-220 inlbs.
For	r hard copper tubing, br	ass and steel pipe, the to	rques to which the clar	np side screw should be tig	ntened 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.

WARNING: 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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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	mpression system is a simple , or plastic). ake your job easier and assure fas	e, convenient metho st, safe and watertight	od of connection for pipe or connections:	tube size service
Use a tube or pipe	cutter to assure a square end	. Make sure pipe is round. On	n copper tubing,use	a rounding tool, if necessa	ary. Surface should
be clean and free	of nicks.				
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	iot 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.
1/2" size 1 1/4" size	20 ftlbs. 35 ftlbs.	3/4" size 1 1/2" size	25 ftlbs. 40 ftlbs.	1" size 2" & 2 1/2" sizes	30 ftIbs. 45 ftIbs.
Lock the tube or pip PVC, polybutylene,	e into the nut by securely tighten and polyethylene tubing, the tor	ing the split clamp side screw ques to which the clamp side s	(use a box end or soc screw should be tigl	ket wrench, not a screwdrive ntened are as follows (NOTE	r). For soft copper, CHANGE IN UNITS):
1/2" size 1 1/4" size	70-80 inIbs. 120-140 inIbs.	3/4" size 1 1/2" size16	80-90 inIbs. 0-180 inIbs.	1" size 2" & 2 1/2" sizes2	90-100 inIbs. 00-220 inIbs.

8. USE ONLY ON COLD WATER SERVICES.

(OVER)

(OVER)

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3210-205

3/22



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.

3210-205	800.292.2737 sales@ay	mcdonald.com aymcdonald.com	3/22
	Damage caused by improper use	e and/or handling will void our warranty.	(Over)
- PVC	Brass pipe * Was marked IPS until	I 2/02 & PEP Until 2017	
- PVC - IP & PVC .	PVC pipe per ASTM D1785 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.
- CTS - CTS - 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 (PEP-9PE pipe per ASTM D2239 SIDR 9 ONLY - Establishe 	ige) Partial Range) ed 2017
- CTS	Copper tube, soft or hard(Type K or L)	- *PEP-7PE pipe per ASTM D2239 SIDR 7 ONLY (Partial Ran	ige)



Installation Instructions **IMPORTANT NOTICE - READ CAREFULLY**

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

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3210-205	800.292.2737 sales@a	avmcdonald.com avmcdonald.com	3/22
	Damage caused by improper us	se and/or handling will void our warranty.	(Over)
- PVC	Brass pipe * Was marked IPS un	itil 2/02 & PEP Until 2017	
- PVC - IP & PVC	PVC pipe per ASTM D1785 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.	
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3210-205	800.292.2737 sales@ayn	ncdonald.com aymcdonald.com	3/22
	Damage caused by improper use	and/or handling will void our warranty.	(Over)
- PVC	* Was marked IPS until	2/02 & PEP Until 2017	
- PVC	PVC pipe per ASTM D1785	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	information.
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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

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

3210-205