

PLUMBING - MANABLOC & MINIBLOC

Worksheet and Take-Off Recommendations

Fixture Line Size Worksheet					
Normal Demand Fixtures		Hot Lines		Cold Lines	
3/8" - 2.5 gpm		Soft	Hard	Soft	Hard
Bathrooms	Lav				
	(all) Toilet				
	Bidet				
	Shower (only)*				
Kitchen	Sink				
	Dishwasher				
	Icemaker				
	Bar				
Laundry	Washing Machine				
	Utility Sink				
Other	Bar				
High Demand Fixture		Hot Lines		Cold Lines	
1/2" - 4.0 gpm		Soft	Hard	Soft	Hard
Bath	Tub/Shower				
	Whirlpool Tub				
Outside	Hose Bibb				
Other					
Total	3/8" Lines				
	1/2" Lines				

MANABLOC WORKSHEET

To determine which MANABLOC you require, simply take the numbers from the "total" column on this worksheet and select a MANABLOC which has at least enough hard and soft ports in the sizes your fixtures require. Pages 11 and 12 show the stock configurations available. You may want to select the next larger MANABLOC to accommodate the possibility of future fixture additions to the home. High volume fixtures, such as bath tubs, whirlpool tubs, and outside hose bibbs require 1/2" lines*. All other lower demand fixtures can normally be supplied using a 3/8" line. The smaller lines may help reduce water waste and make hot water delivery faster.

* Residual pressure required by specific fixture and distance from the MANABLOC may dictate use of 1/2" PEX, refer to MANABLOC Tube Size Guide (available from Vanguard) & fixture manufacturer's requirements for sizing of line.

EXAMPLE - MANABLOC FITTING TAKE-OFF

Below is a list of fittings (from rough in to the trim) suggested for each of the conventional fixtures in a new home with a MANABLOC.

	Qty	Part#	Description
MANABLOC	1	MANABLOC	(see worksheet above for determining proper size and configuration)
	1	MBB2	Mounting Brackets
	as required	Supply Adapters	
	1	ECAP1	End Cap (where required)
		MXLSA33	Port Connection (Qty. determined by number of 1/2" lines)
		XLCR3	1/2" Crimp Rings (Qty. determined by number of 1/2" lines)
	3 or 4	MXSA4	3/4" Supply Connections
	3 or 4	XLCR4	3/4" Crimp Rings
	1	MXSA5	Supply Connection for 1" inlet (where required)
	1	XLCR5	1" Crimp Ring (where required)
Sink	2	XLSA23	CRIMPSERT® Lav Fixture Fitting - 3/8" Insert x 1/2" Swivel
	2	CLSE23	Turnout Clamp
	2	VXP2	3/8" Test Plugs
	4	XLCR2	3/8" Crimp Rings
	2	RXEW2	Single Hole Escutcheon
	1	RXEW2D	Double Hole Escutcheon
Dishwasher	1	XCME22	Brass Compression Elbow - 1/2" OD Comp x 3/8" MPT Brass Elbow
	1	CLSE23	Turnout Clamp
	1	VXP2	3/8" Test Plugs
	1	XLCR2	3/8" Crimp Ring
Ice Maker	1	IMK3	Icemaker Kit
	2	XLCR2	3/8" Crimp Rings

CONTINUED ON FOLLOWING PAGE

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Fitting Take-Off

EXAMPLE - MANABLOC FITTING TAKE-OFF - CONTINUED

	Qty	Part#	Description
Lav	2	XLSA23	CRIMPSERT Lav Fixture Fitting - 3/8" Insert x 1/2" Swivel
		or	
	2	XLSE23C	CRIMPSERT Lav Swivel Adapter - 3/8" Insert x Lav Swivel Elbow
		or	
	2	XLC22M/21F	CRIMPSERT Sweat Adapter - 3/8" Insert x 1/4" Female Sweat
	2	CLSE23	Turnout Clamp
	2	VXP2	3/8" Test Plugs
	4	XLCR2	3/8" Crimp Rings
	2	RXEW2	Single Hole Escutcheon
		or	
	1	RXEW2D	Double Hole Escutcheon
Whirlpool Tub	2	XLC33M	CRIMPSERT Male Sweat Adapters - 1/2" Insert x 1/2" Male Sweat
	2	XLCR3	1/2" Crimp Rings
Tub/Shower	2	XLC33M	CRIMPSERT Male Sweat Adapters - 1/2" Insert x 1/2" Male Sweat
		or	
	2	XLE33MC	CRIMPSERT 1/2" Elbow Adapter - 1/2" Insert x 1/2" Male Sweat
	2	XLCR3	1/2" Crimp Rings
Toilet/Bidet (one of these applications)			
	1	XLCSE23C	CRIMPSERT Water Closet Swivel Elbow - 3/8" Insert x Ballcock Nut
	1	CLSE23	Turnout Clamp
	1	VXP2	3/8" Test Plug
	2	XLCR2	3/8" Crimp Rings
	1	RXEW2	Single Hole Escutcheon
		or	
	1	XLE23SO	CRIMPSERT Stub-out Elbow (angle stop applications) - 3/8" Insert x 1/2" Copper Bullet
	1	XLCR2	3/8" Crimp Ring
		or	
	1	XLCSA23	CRIMPSERT Water Closet Fitting - 3/8" Insert x 1/2" Ballcock Nut
	1	CLSE23	Turnout Clamp
	1	VXP2	3/8" Test Plug
	2	XLCR2	3/8" Crimp Rings
	1	RXEW2	Single Hole Escutcheon
		or	
	1	XLSE23C	CRIMPSERT Lav Swivel Adapter - 3/8" Insert x Lav Swivel Elbow
Washing Machine	2	XLC23M/22F	CRIMPSERT Male Sweat Adapter - 3/8" Insert x 1/2" Male Sweat
	2	XLCR2	3/8" Crimp Ring
Hose Bibbs	2	XLC33F	CRIMPSERT 1/2" Female Sweat Adapter - 1/2" Insert x 1/2" Female Sweat
		or	
	2	XLC33M	CRIMPSERT 1/2" Male Sweat Adapter - 1/2" Insert x 1/2" Male Sweat
	2	XLCR3	1/2" Crimp Rings
Water Heater	2	XLC44F	CRIMPSERT 3/4" Female Sweat Adapter - 3/4" Insert x 3/4" Female Sweat
	2	XLCR4	3/4" Crimp Ring
	2	XLSE4418	CRIMPSERT 3/4" Insert x 3/4" FPT Swivel Connector 18" Flex
	2	XLCR4	3/4" Crimp Ring
		or	
	2	XLMS4418	CRIMPSERT 3/4" Insert x 3/4" MPT Swivel Connector 18" Flex
	2	XLCR4	3/4" Crimp Ring
Water Softener	2	XLC44F	CRIMPSERT 3/4" Female Sweat Adapter - 3/4" Insert x 3/4" Female Sweat
	2	XLCR4	3/4" Crimp Ring
Tubing		As required	See pages 6-9.
Clamps		Order quantities to support the tubing at least every 32" and as noted in installation instructions 3/8" CLJ2 1/2" CLJ3 3/4" CLJ4 1" CLJ5	
Bundle Ties		HB14120	
Elbows		will be required on some 3/4" and 1" tubing per installation instructions.	
Tees		may be needed at water heater and water softener locations.	