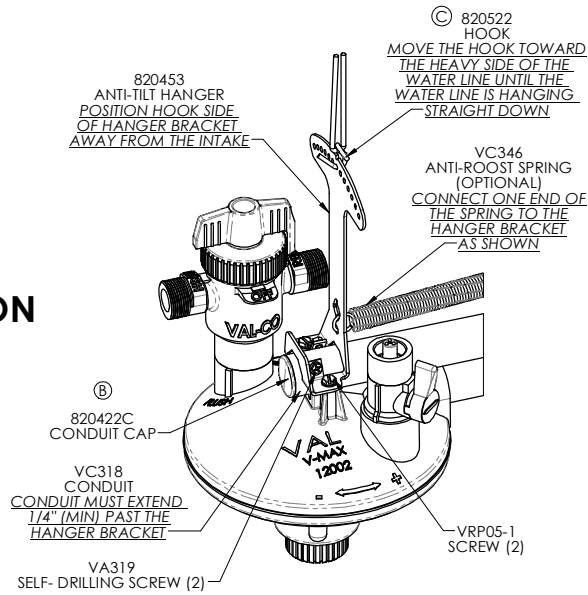


REV	ECN#	DESCRIPTION	DATE	BY
A	14786	RELEASED PART NUMBER AND PRINT INTO ES	3/26/2020	DBT
B	15379	REPLACED 2000000 WITH 820422C	6/30/2021	DBT
C	15688	REPLACED 820457 WITH 820522	2/15/2022	DBT

## CONDUIT INSTALLATION

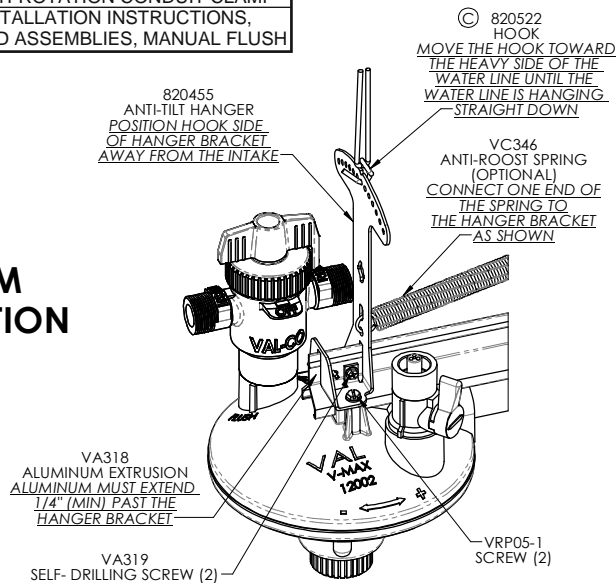


### 990282 [B] BOM

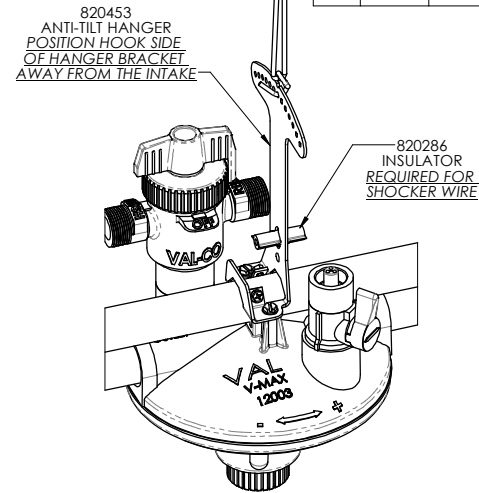
ITEM	PART NO.	QTY	DESCRIPTION
a	990196	1	INSTALLATION INSTRUCTIONS ANTI-TILT HANGER BRACKETS
b	990197	1	INSTALLATION INSTRUCTIONS, ANTI-ROTATION CONDUIT CLAMP
c	990253	1	INSTALLATION INSTRUCTIONS, END ASSEMBLIES, MANUAL FLUSH

02/28/2022 Amos Fowler

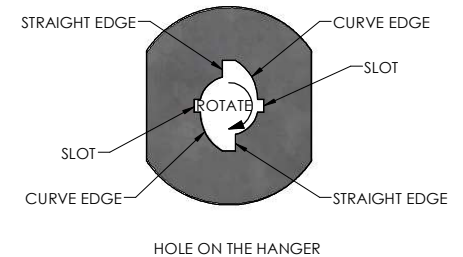
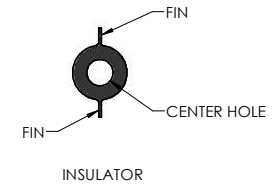
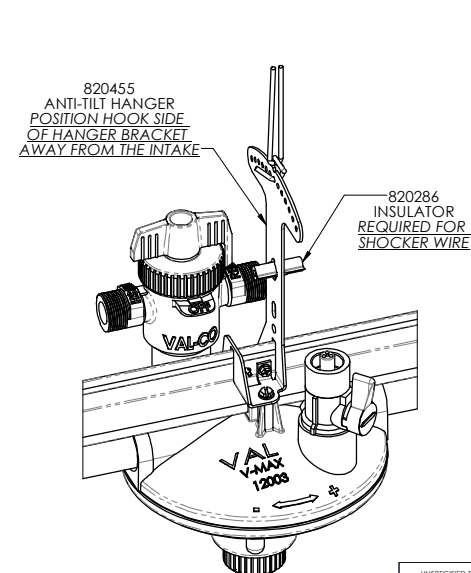
## VR202



## ALUMINUM INSTALLATION

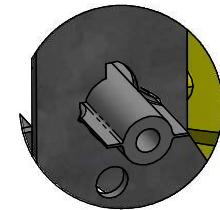


## VR203 - VR204

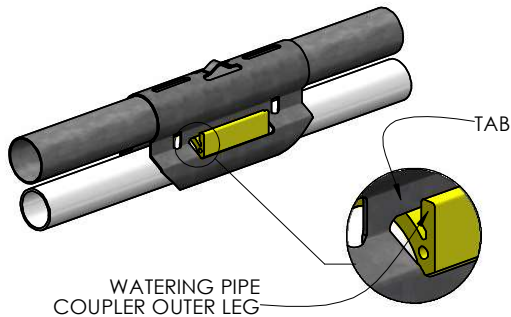
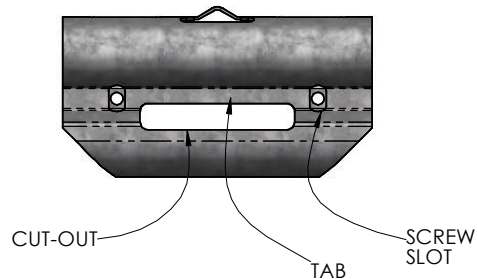
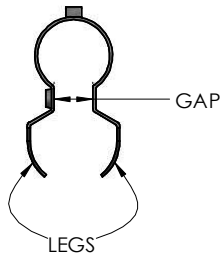


### INSULATOR INSTALLATION (OPTIONAL)

- 1- ALIGN THE INSULATOR FIN WITH THE STRAIGHT EDGES OF THE HOLE, PUSH THE INSULATOR ABOUT 1/2 WAY THROUGH THE HANGER BRACKET
- 2- ROTATE THE INSULATOR UNTIL THE FIN SNAPS INTO BOTH SLOTS
- 3- THREAD THE SHOCKER WIRE THROUGH THE INSULATOR

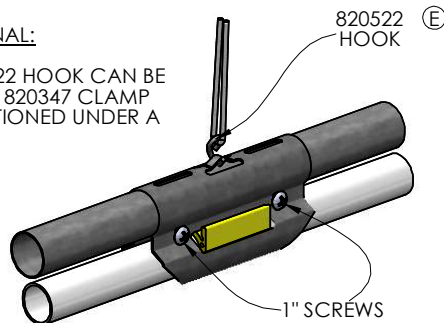


UNSPECIFIED TOLERANCES DECIMAL 2 PLACE ± 0.10 3 PLACE ± 0.02 ANGULAR ± 1/2°	DRAWN IN DATE 3/25/2020 BY DBT	NAME INSTALLATION INSTRUCTIONS ANTI-TILT HANGER BRACKETS	
		MATERIAL	
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		SHEET 1 OF 1	



#### OPTIONAL:

- (E) A 820522 HOOK CAN BE USED IF 820347 CLAMP IS POSITIONED UNDER A DROP



990197	SHEET 1	REV. E	REV	ECN#	DESCRIPTION	DATE	BY
			A	13550	RELEASED PART NUMBER AND PRINT INTO ES	5/30/2018	DBT
			B	14768	ADDED SHEET 2 FOR NEW INSTALLATION. CHANGED ALL THE WORD "COUPLER" TO "CLAMP"	8/20/2019	DBT
			C	14923	ADDED THE 'S' HOOK ON THE ANTI-ROTATION CONDUIT CLAMP	2/18/2020	DBT
			D	15174	REMOVED 2000000 AND ADDED 820422	12/11/2020	DBT
			E	15323	REPLACED 820457 WITH 820522	3/12/2021	DBT

THIS INSTRUCTION SHEET IS INTENDED TO AID IN THE INSTALLATION OF VAL-CO'S ANTI-ROTATION CONDUIT CLAMP (PART #820347) ONTO AN EXISTING VAL-CO WATERING LINE. EXISTING WATERING LINES TYPICALLY HAVE THE CONDUIT CONNECTION OFFSET FROM THE WATER PIPE COUPLER; THE 820347 WILL BE INSTALLED AT EACH WATERING LINE COUPLER. FOR INSTRUCTIONS RELATED TO A NEW WATERING LINE INSTALLATION SEE SHEET 2 OF 2

- 1 GRASP BOTH LEGS OF THE ANTI-ROTATION CONDUIT CLAMP AND SPREAD THEM OPEN SO THAT THE GAP IS SLIGHTLY LARGER THAN THE CONDUIT


- 2 LAY THE ANTI-ROTATION CONDUIT CLAMP ON TOP OF THE CONDUIT WITH THE TWO SCREW SLOTS ON THE SAME SIDE OF THE LINE THAT YOU ARE STANDING ON
- SQUEEZE BOTH LEGS OF THE ANTI-ROTATION CONDUIT CLAMP INWARD AND ENSURE BOTH TABS ARE INSIDE THE WATERING PIPE COUPLER'S OUTER LEGS

IF NECESSARY, MOVE THE ANTI-ROTATION CONDUIT CLAMP SO THE WATERING PIPE COUPLER IS ABOUT IN THE MIDDLE OF THE CUT-OUT

BE SURE THE DRINKERS ON THE WATERING LINE ARE HANGING STRAIGHT DOWN

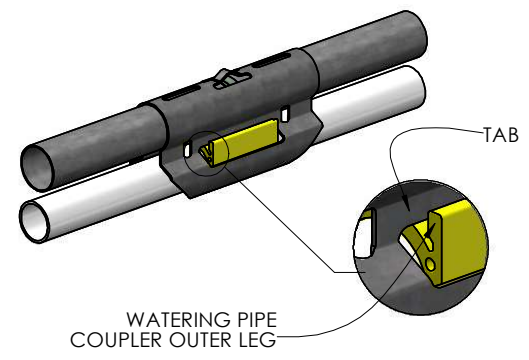
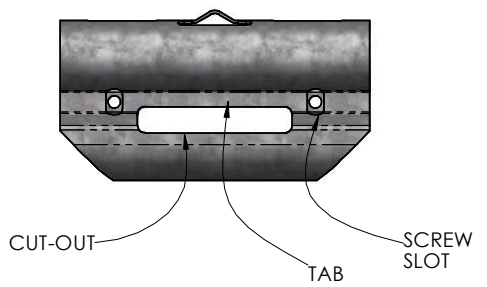
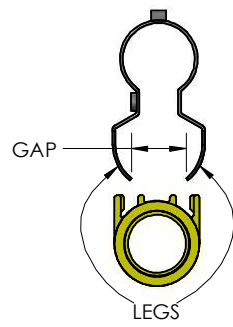
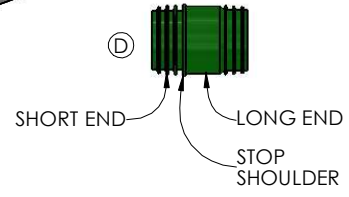
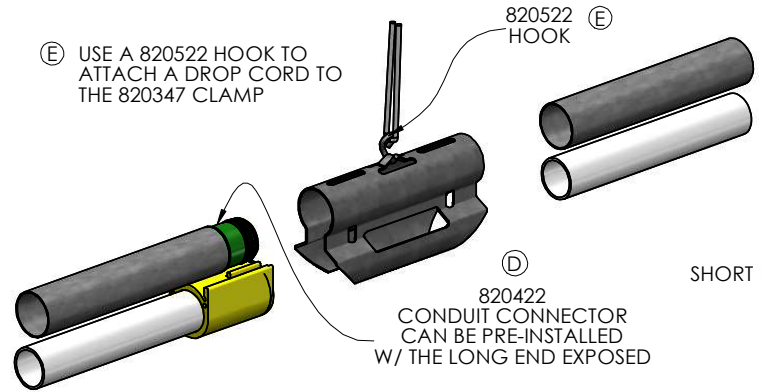
- 3 WHILE SQUEEZING THE ANTI-ROTATION CONDUIT CLAMP TIGHTLY AGAINST THE WATERING PIPE COUPLER, INSTALL AND TIGHTEN THE 1" SCREWS

FINALLY MAKE SURE THE BRACKET IS FIRMLY INPLACE AND NOT ABLE TO SLIDE OR ROTATE ON THE CONDUIT

UNSPECIFIED TOLERANCES 2 PLACE ± .060 3 PLACE ± .030 4 PLACE ± .010 HOLE DIA. ± .010 ANGULAR ± 1°	DIMENSIONS ARE IN INCHES DIMENSIONS IN ( ) ARE MILLIMETERS UNLESS OTHERWISE SPECIFIED. DO NOT SCALE	 <b>VALCO COMPANIES, INC.</b> PO BOX 8 NEW HOLLAND, PA 17557	DESCRIPTION 1	
This drawing and any print thereof is the property of VALCO COMPANIES INC. and is subject to return on request by this company. The information shown herein is confidential and the recipient by accepting this drawing agreed not to use any information contained therein in any manner which will be detrimental to VALCO COMPANIES INC.	DATE 6/1/2018	DESCRIPTION 1	INSTALLATION INSTRUCTIONS,	
	DRAWN DBT	DESCRIPTION 2	ANTI-ROTATION CONDUIT CLAMP	
	CHECK 03/16/2021 Amos Fowler	WEIGHT	SHEET 1 OF 2	
	SCALE 1:8	990197	REV. E	

990197  
SHEET 2  
REV. E

THIS INSTRUCTION SHEET IS INTENDED TO AID IN THE INSTALLATION OF VAL-CO'S ANTI-ROTATION CONDUIT CLAMP (PART #820347) ONTO A VAL-CO WATERING LINE DURING A NEW INSTALLATION. USING THIS CLAMP WITH A NEW INSTALLATION VAL-CO STRONGLY RECOMMENDS PLACING THE WATER PIPE ENDS AND THE CONDUIT ENDS TOGETHER -- DO NOT OFFSET THE CONNECTIONS. FOR INSTRUCTIONS RELATED TO AN EXISTING WATERING LINE INSTALLATION SEE SHEET 1 OF 2



1 GRASP BOTH LEGS OF THE ANTI-ROTATION CONDUIT CLAMP AND SPREAD THEM OPEN SO THAT THE GAP IS SLIGHTLY LARGER THAN THE COUPLER

POSITION THE ANTI-ROTATION CONDUIT CLAMP WITH THE TWO SCREW SLOTS ON THE SAME SIDE OF THE LINE THAT YOU ARE STANDING ON

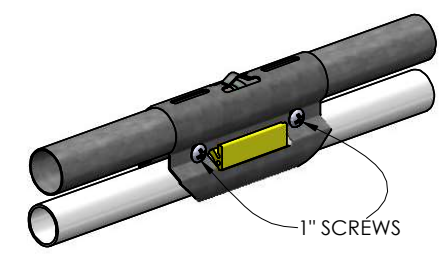
SLIDE THE ANTI-ROTATION CONDUIT CLAMP ONTO THE COUPLER END OF THE WATERING PIPE UNTIL THE ANTI-ROTATION CONDUIT CLAMP SNAPS IN PLACE ON THE WATERING PIPE COUPLER

2 ALIGN A NEW ASSEMBLY OF THE WATERING PIPE (END WITHOUT COUPLER) INTO ANTI-ROTATION CONDUIT CLAMP AND THE WATERING PIPE COUPLER THEN PUSH IN UNTIL IT COMPLETELY STOPS

SQUEEZE BOTH LEGS OF THE ANTI-ROTATION CONDUIT CLAMP INWARD AND ENSURE BOTH TABS ARE INSIDE THE WATERING PIPE COUPLER'S OUTER LEGS


IF NECESSARY, MOVE THE ANTI-ROTATION CONDUIT CLAMP SO THE WATERING PIPE COUPLER IS ABOUT IN THE MIDDLE OF THE CUT-OUT

BE SURE THE DRINKERS ON THE WATERING LINE ARE HANGING STRAIGHT DOWN

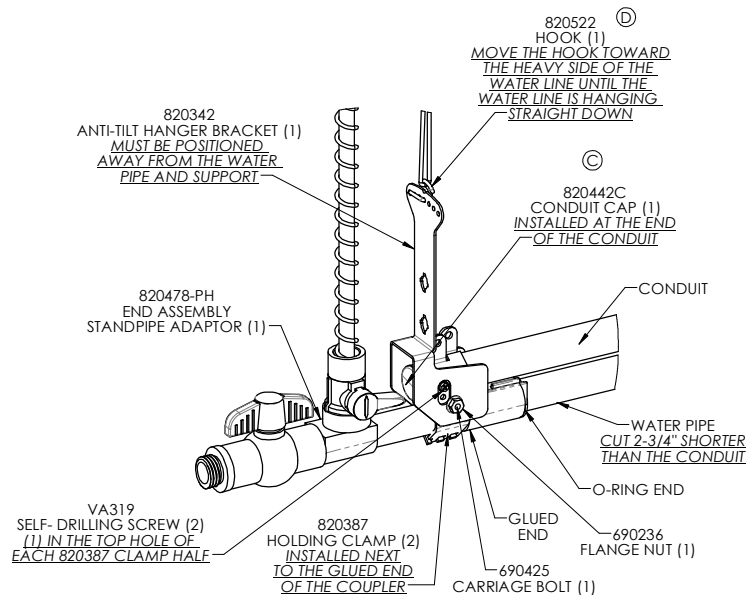


3 WHILE SQUEEZING THE ANTI-ROTATION CONDUIT CLAMP TIGHTLY AGAINST THE WATERING PIPE COUPLER, INSTALL AND TIGHTEN THE 1" SCREWS

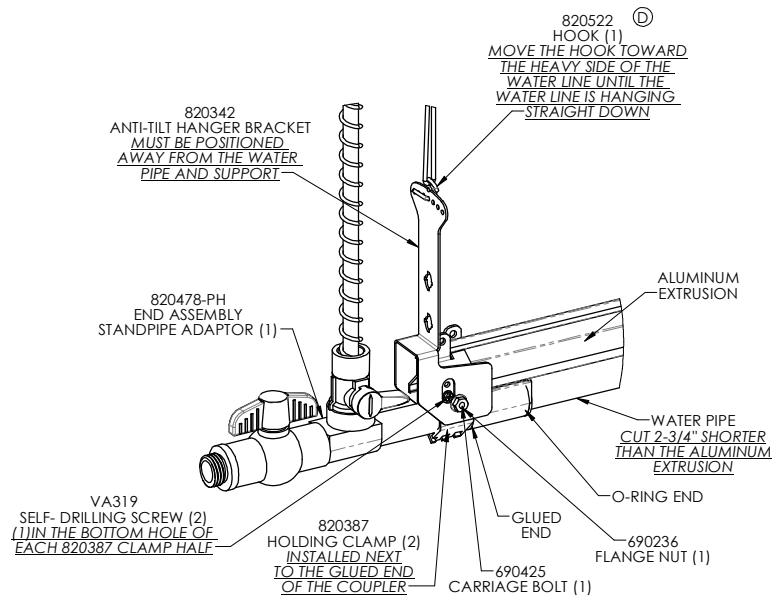
FINALLY MAKE SURE THE CLAMP IS FIRMLY INPLACE AND NOT ABLE TO SLIDE OR ROTATE ON THE CONDUIT

UNSPECIFIED TOLERANCES 2 PLACE ± .060 3 PLACE ± .030 4 PLACE ± .010 HOLE DIA. ± .010 ANGULAR ± 1°	DIMENSIONS ARE IN INCHES DIMENSIONS IN ( ) ARE MILLIMETERS UNLESS OTHERWISE SPECIFIED. DO NOT SCALE	 <b>VALCO COMPANIES, INC.</b> PO BOX 8 NEW HOLLAND, PA 17557
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DATE 6/1/2018 DRAWN DBT CHECK 03/16/2021 Amos Fowler WEIGHT SCALE 1:8	DESCRIPTION 1 INSTALLATION INSTRUCTIONS, DESCRIPTION 2 ANTI-ROTATION CONDUIT CLAMP	990197 REV. E
SHEET 2 OF 2		

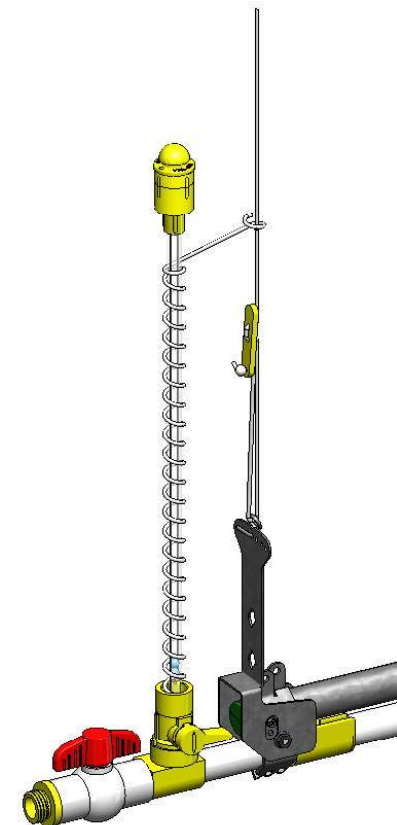
## CONDUIT INSTALLATION



## ALUMINUM INSTALLATION



REV	ECN#	DESCRIPTION	DATE	BY
A	14984	RELEASED PART NUMBER AND PRINT INTO ES	3/30/2020	DBT
B	15026	REMOVED INLINE AND INSULATOR INSTALLATIONS. CHANGED DRAWING NAME	4/29/2020	DBT
C	15174	ADDED 820422C	12/11/2020	DBT
D	15688	REPLACED 820457 WITH 820522	2/16/2022	DBT



### NOTES:

- 1- THE WATER PIPE MUST BE CUT 2-3/4" SHORTER THAN THE CONDUIT OR ALUMINUM EXTRUSION
- 2- THE HOLDING CLAMPS 820387 MUST BE INSTALLED NEXT TO THE COUPLER
- 3- FOR CONDUIT SUPPORT USE (1) VA319 SELF-DRILLING SCREW IN THE TOP HOLE OF EACH 820387 CLAMP HALF
- 4- FOR ALUMINUM SUPPORT USE (1) VA319 SELF-DRILLING SCREW IN THE BOTTOM HOLE OF EACH 820387 CLAMP HALF

UNSPECIFIED TOLERANCES DECIMAL 2 PLACE ± .010 3 PLACE ± .002 ANGULAR ± 1/2°		DRAWN IN DATE DBT 3/30/2020	NAME INSTALLATION INSTRUCTIONS, END ASSEMBLIES, MANUAL FLUSH
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SIZE C		990253	REV. D
SCALE 1:12		SHEET 1 OF 1	PO BOX 958 LANCASTER, PA 17608