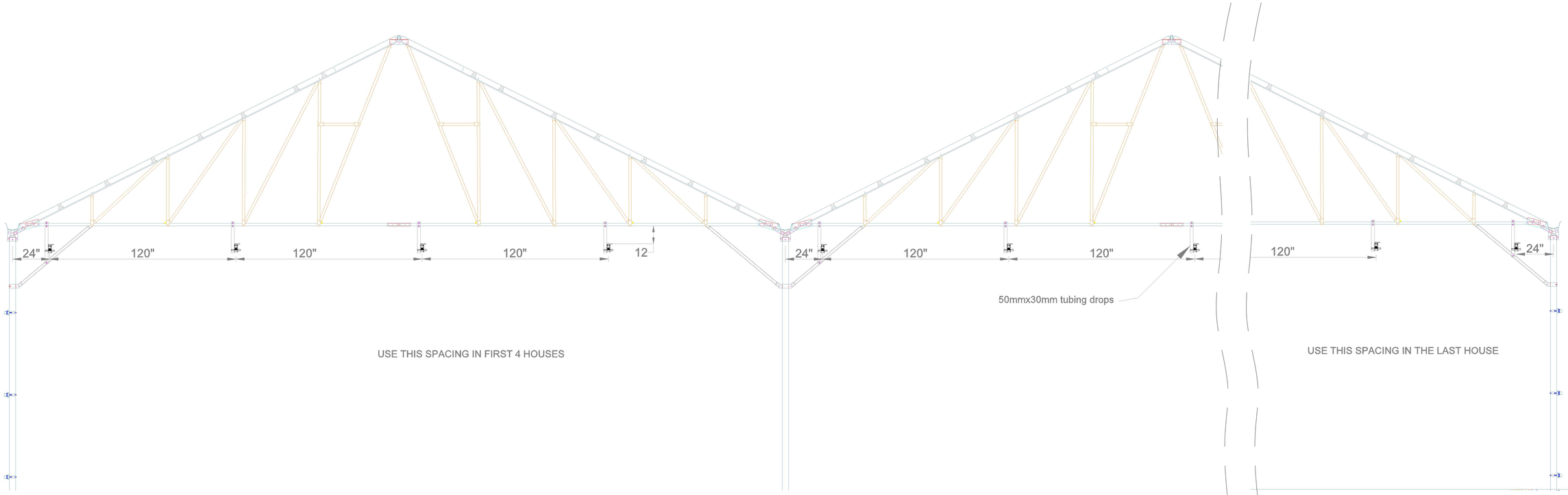
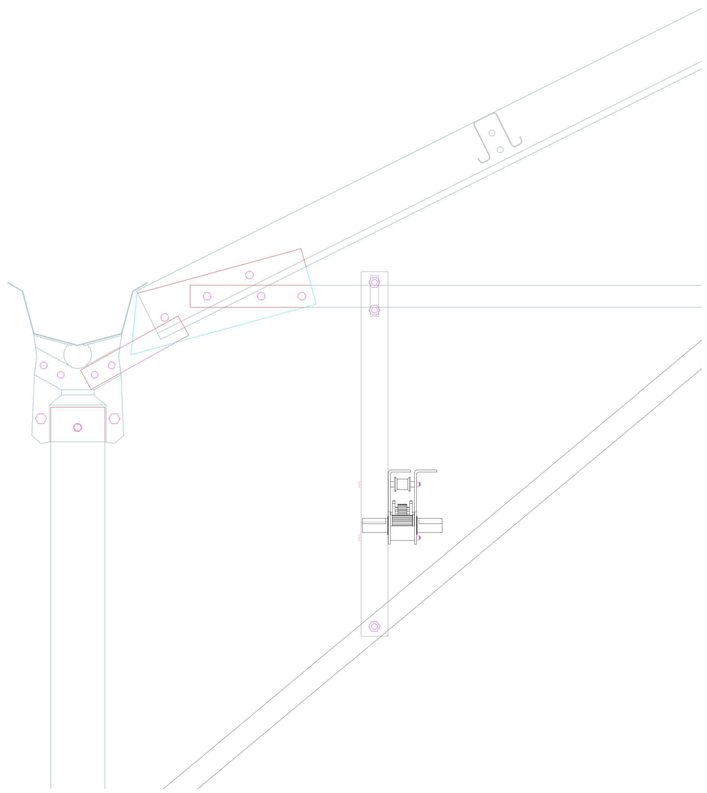
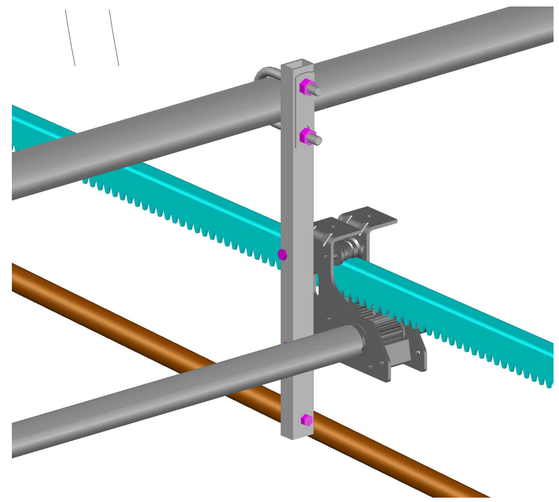
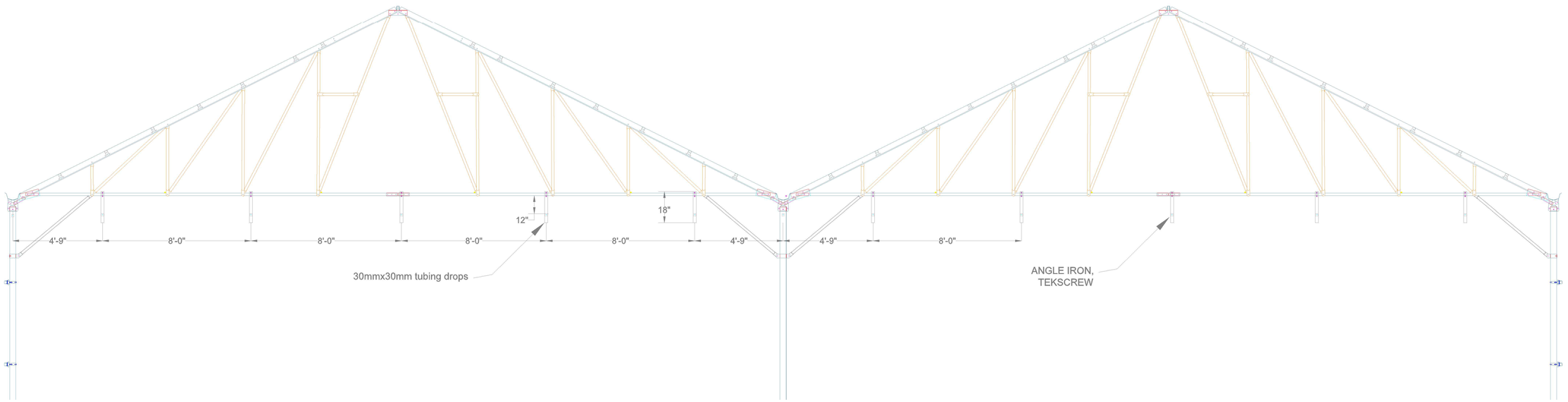


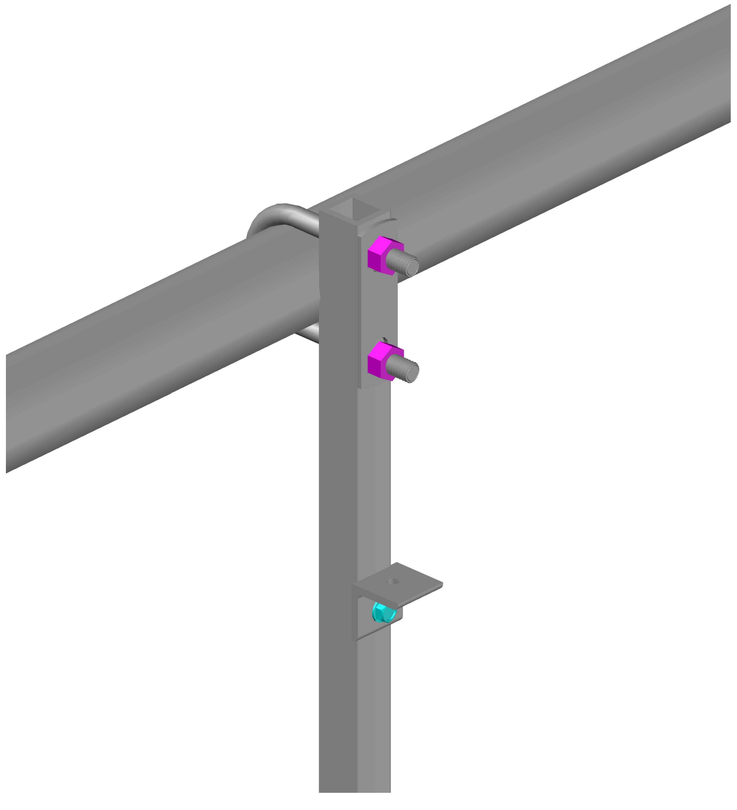


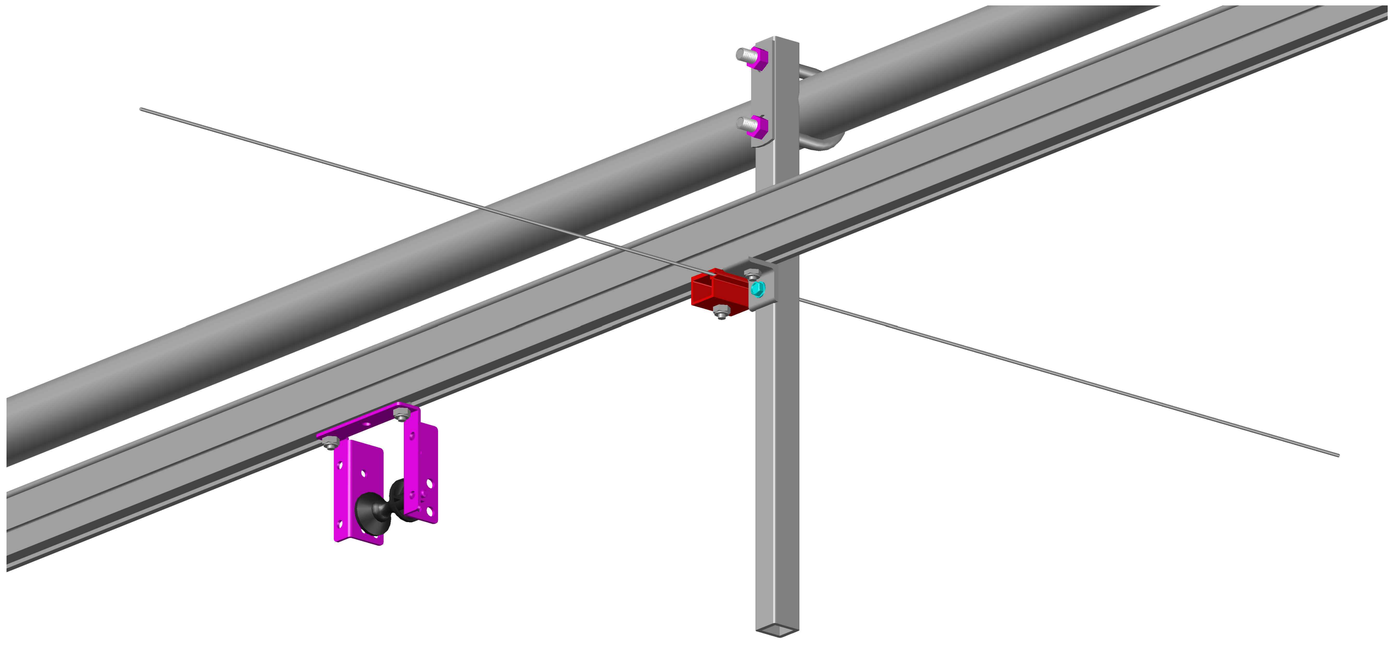
INSTALL THESE DROPS ONLY IN THE BAY WITH THE DRIVESHAFT



SCALE: None	DATE	PROJECT: TOTAL ENERGY GROUP	
DRAWN: Philip van Spronsen	01/30/2018		
CHECKED:			
CHANGED:		NAME: SKY UNLIMITED LAYOUT SHEET	
TOTAL ENERGY Group integrated greenhouse technology		FORMAT A1	DRAWING NUMBER 2016-001 / SHEET NO. L01
		REMARKS:	





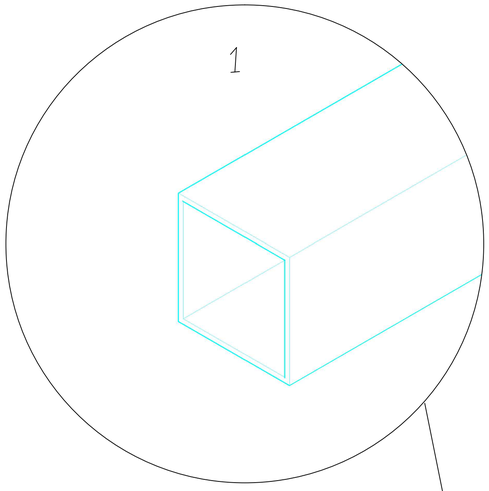


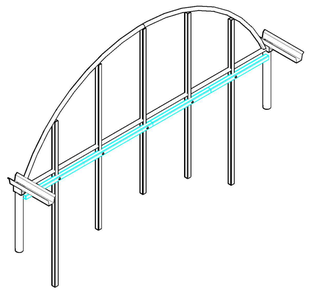
INSTALL THESE DROPS IN EVERY BAY OF THE GREENHOUSE

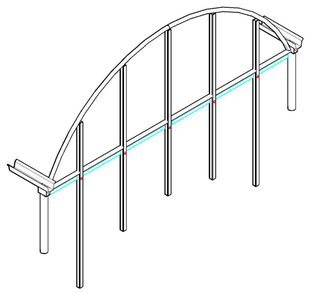
SCALE: None	DATE	PROJECT:	TOTAL ENERGY GROUP
DRAWN: Philip van Spronsen	01/30/2018		
CHECKED:		NAME:	SKY UNLIMITED LAYOUTSHEET
CHANGED:			
TOTAL ENERGY Group Integrated greenhouse technology		FORMAT: A1	DRAWING NUMBER: 2016-001
		SHEET NO.: L02	
		REMARKS:	

BEGIN INSTALLATION OF SYSTEM BY INSTALLING SUPPORT TUBING AT BOTH ENDS OF THE GREENHOUSE AS SHOWN IN ILLUSTRATIONS. KEEP IN MIND THAT THERE HAS TO BE A CLEAN LINE OF SIGHT FROM ONE END OF THE GREENHOUSE TO THE OTHER END TO LET THE SYSTEM TRAVEL FREELY. THE LAYOUT OF THIS TUBING WILL DETERMINE THE SHAPE OF THE SHADE SYSTEM.

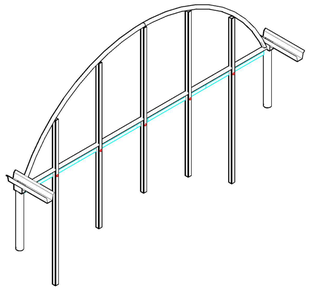
1	S-110	SQUARE TUBING 50-50MM
2	S-38030641	SQ. TUBE CONNECTOR

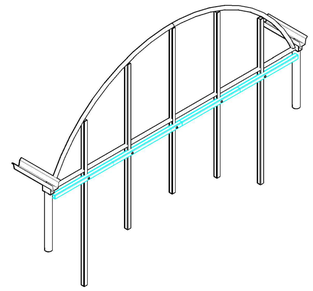




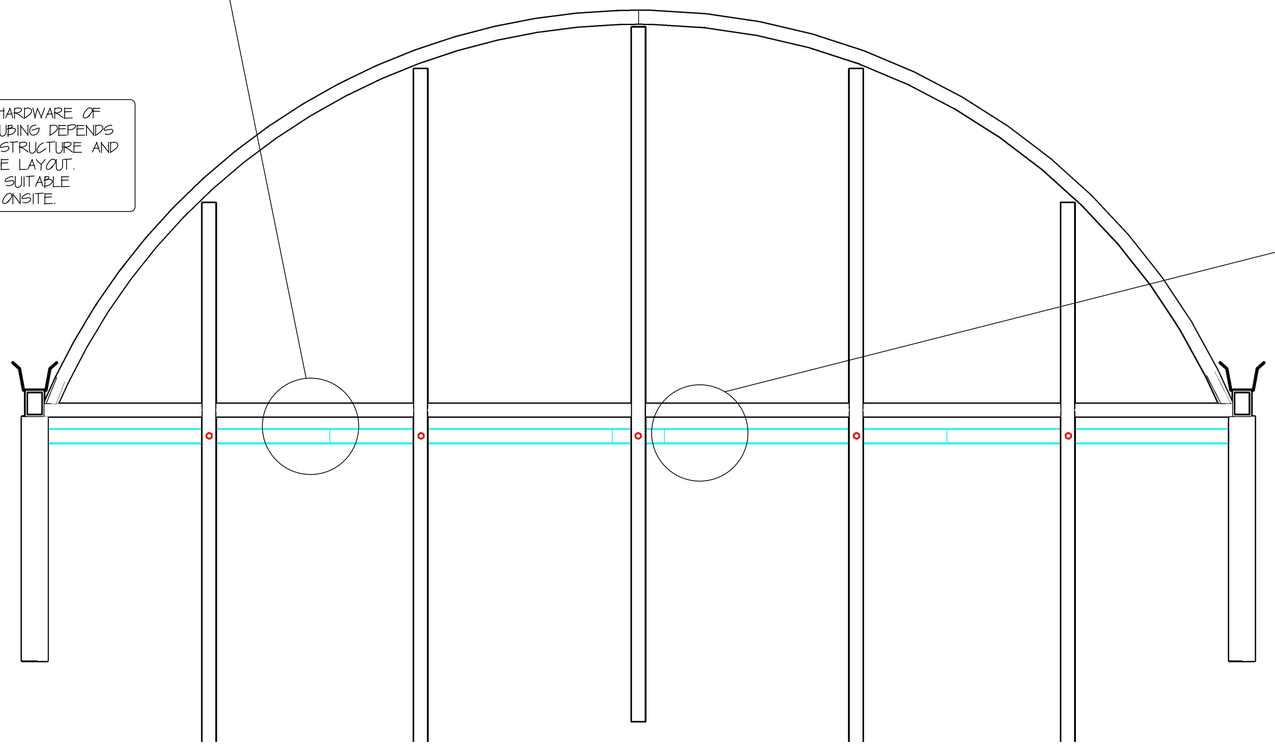


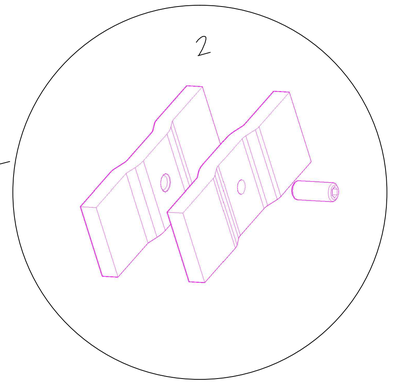
WHEN POSSIBLE MOUNT THE TUBING ON THE OUTER SIDE OF THE GABLE STRUCTURE. THIS TO PREVENT THE POSSIBLE NEED OF A SLIP SECTION IN THE LAST BAY OF THE SYSTEM.





MOUNTING HARDWARE OF SUPPORT TUBING DEPENDS ON GABLE STRUCTURE AND GREENHOUSE LAYOUT. DETERMINE SUITABLE HARDWARE ONSITE.

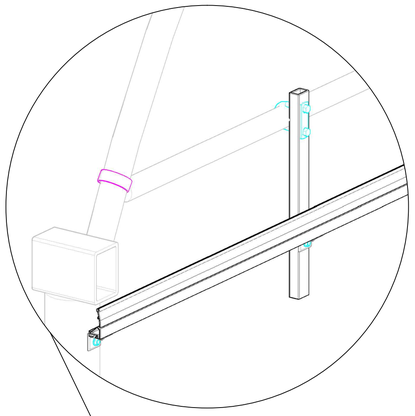


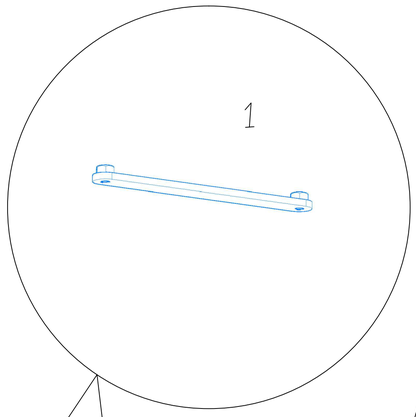


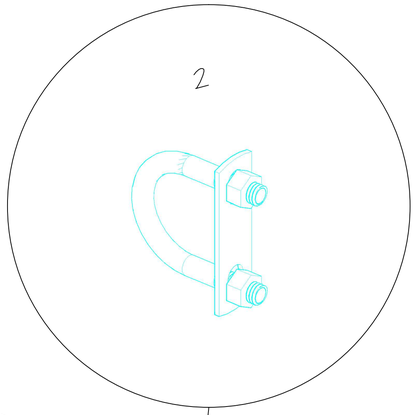
SCALE: None	DATE	PROJECT:	TOTAL ENERGY GROUP
DRAWN: *Philip van Spronsen*	10-17-2016		
CHECKED:		NAME:	50-50 TUBE INSTALL FLAT THG-AO
CHANGED:			
		FORMAT: A1	DRAWING NUMBER: 2016-001
			SHEET NO.: 01
		REMARKS:	

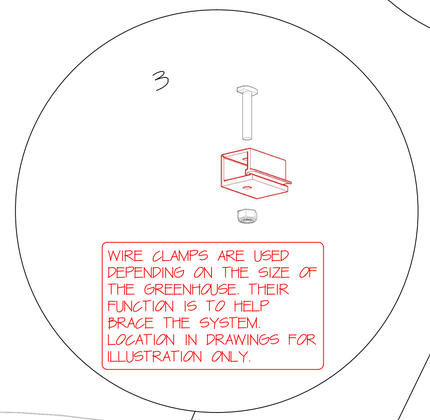
TOTAL ENERGY Group
integrated greenhouse technology

1	S-S131	LEADING EDGE COUPLER
2	S-M201	U-BOLT, 5/16" X 1-3/8" X 2-1/2"
3		WIRE CLAMP
4		ANGLE IRON
5	S-S112A	ALUMINUM PROFILE 24MM
6		

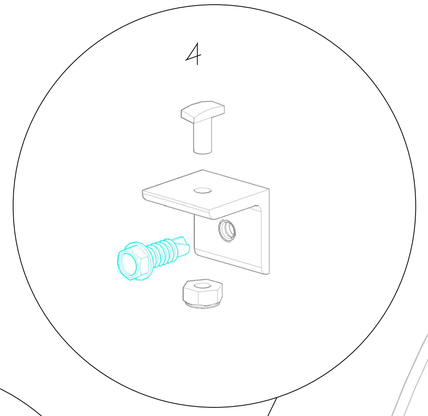


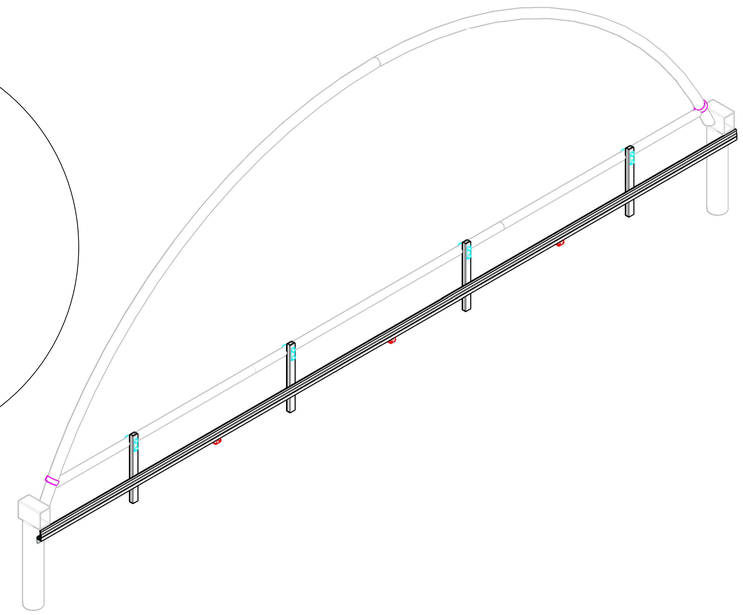


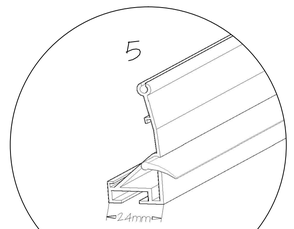


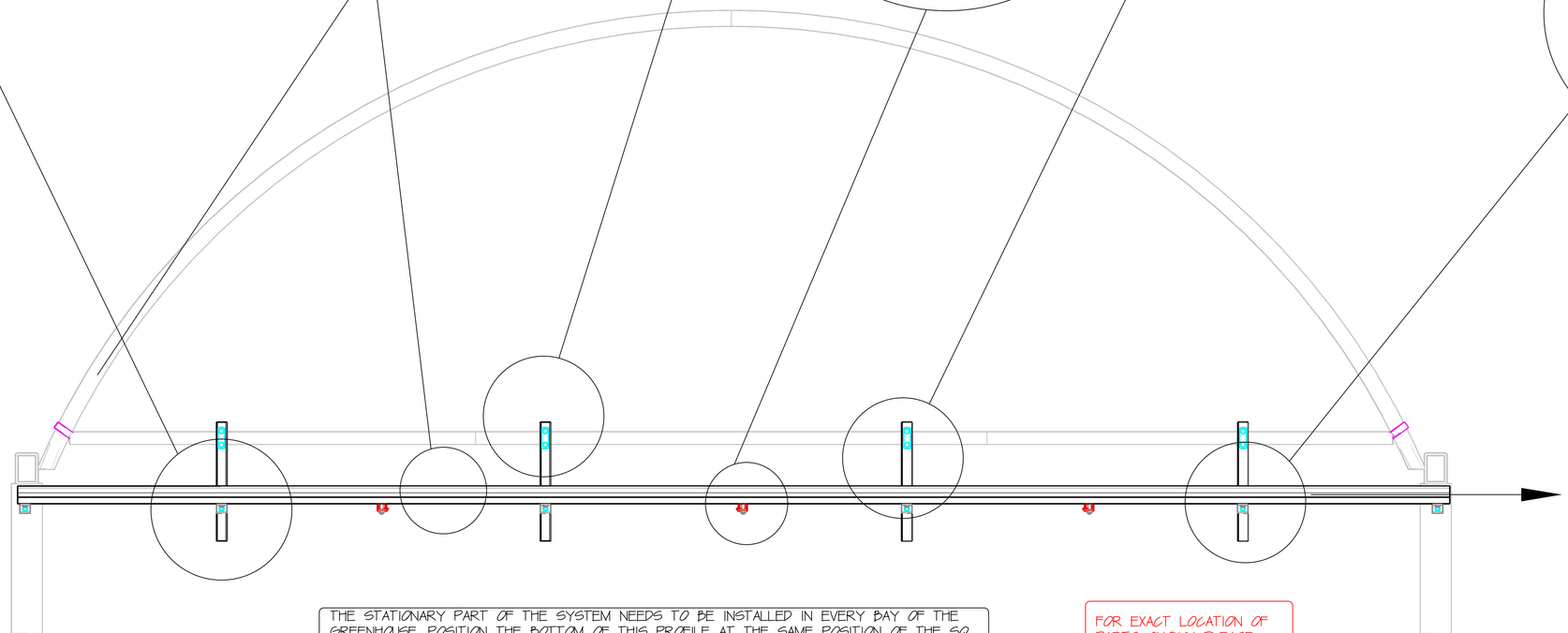


WIRE CLAMPS ARE USED DEPENDING ON THE SIZE OF THE GREENHOUSE. THEIR FUNCTION IS TO HELP BRACE THE SYSTEM. LOCATION IN DRAWINGS FOR ILLUSTRATION ONLY.









ALUMINIUM PROFILE WILL PASS IN FRONT OF THE GREENHOUSE POST AND STRETCH THE COMPLETE WIDTH OF THE BLACKOUT ZONE IN A GUTTER CONNECT GREENHOUSE.

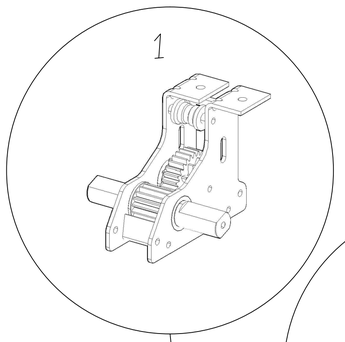
THE STATIONARY PART OF THE SYSTEM NEEDS TO BE INSTALLED IN EVERY BAY OF THE GREENHOUSE. POSITION THE BOTTOM OF THIS PROFILE AT THE SAME POSITION OF THE SQ. TUBING AT THE GABLES. YOU CAN INSTALL STRINGERS FROM THE CORNERS OF THE SQ. TUBING AT THE GABLE TO HELP DETERMINING THE CORNERS. MAKE SURE THE PROFILE IS INSTALLED IN A WAY SO IT CAN PASS THE GREENHOUSE POST WHEN PASSING UNDER THE GUTTER.

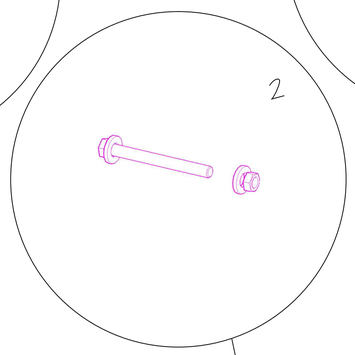
FOR EXACT LOCATION OF PARTS SHOWN PLEASE REFER TO LAYOUT SHEET THAT CAME WITH THE MATERIALS OF THE SYSTEM.

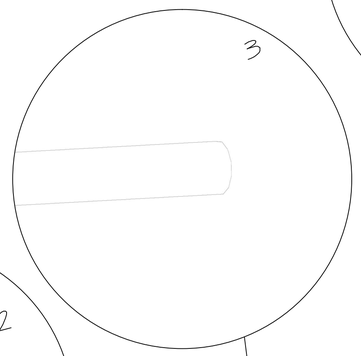
SCALE: None	DATE	PROJECT:	TOTAL ENERGY GROUP
DRAWN: Philip van Spronsen	10-17-2016		
CHECKED:		NAME:	ALU INSTALL REG SECTION FLAT THG-A0
CHANGED:			
		FORMAT A1	DRAWING NUMBER 2016-001
			SHEET NO. 02
		REMARKS:	

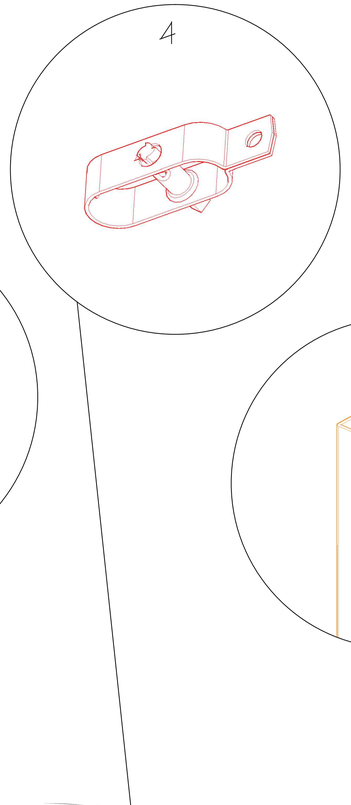
TOTAL ENERGY GROUP
integrated greenhouse technology

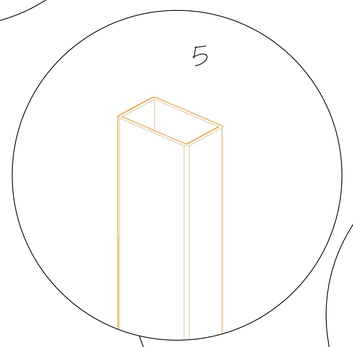
1	P.THG40	PINION HOUSE UNIT
2		M6 X 130 + NYLOCK NUT
3		DRIVE SHAFT 1"
4		WIRE STRAINER
5	S-S109	50-30MM GALVANIZED TUBING
6		C-CLAMP, SYSTEM SPECIFIC

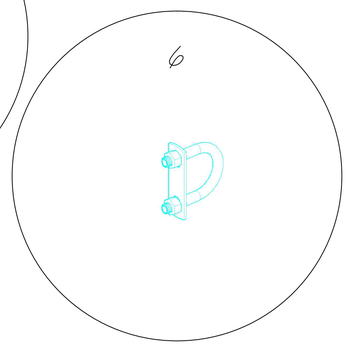


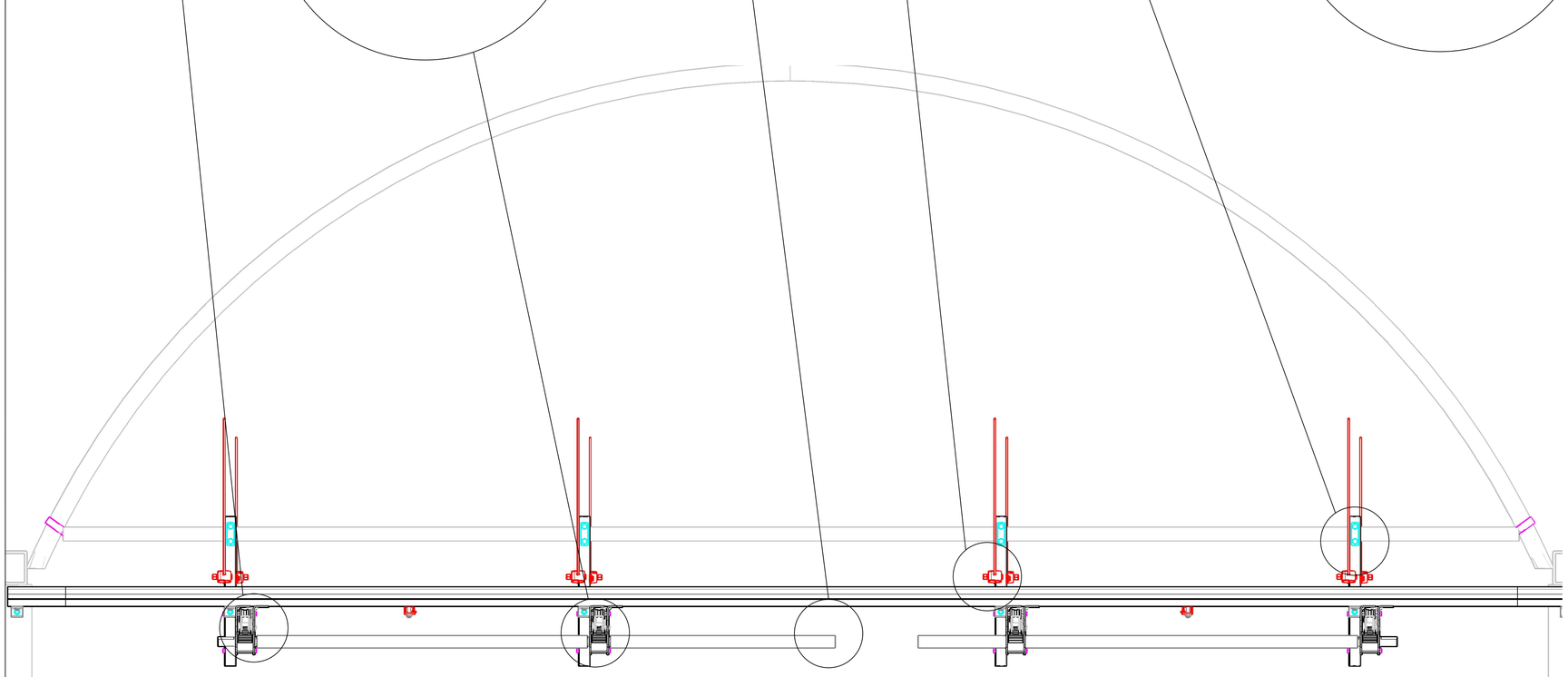


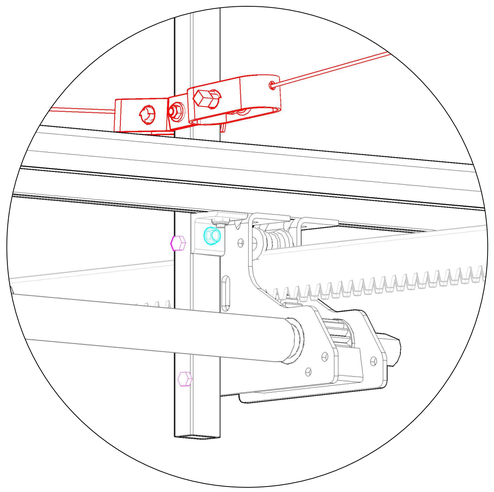


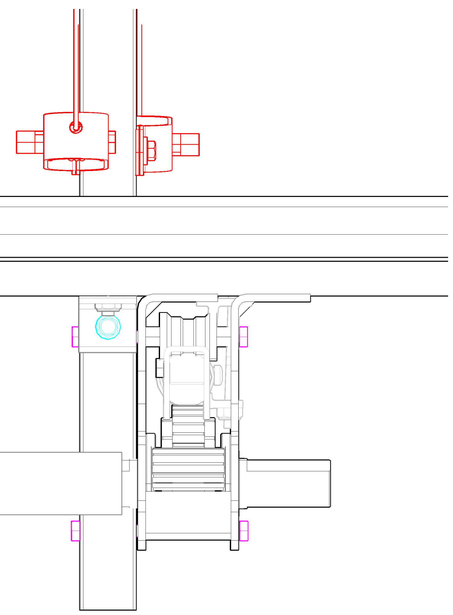












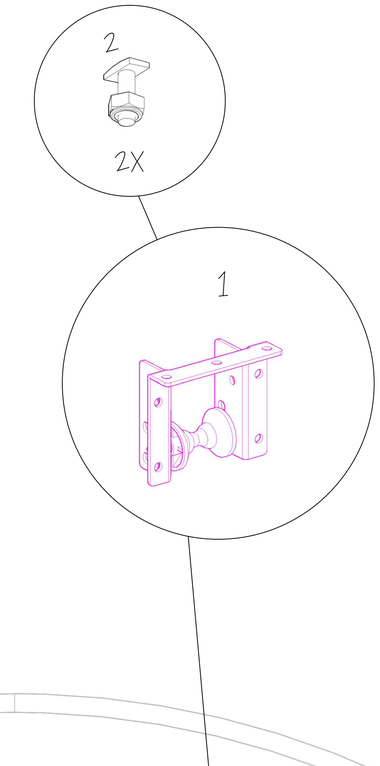
THE DRIVESHAFT IS POSITIONED IN THE CENTER OF THE GREENHOUSE. INSTALL 50-30MM TUBING TO INSTALL THE THG-40 UNITS. THIS TUBING IS ALSO USED TO MOUNT THE ALUMINUM PROFILE.
THE SPACING OF THE RACKS AND THE POSITION OF THE MOTOR IS SYSTEM SPECIFIC. SEE LAYOUT SHEET FOR MORE DETAILS.

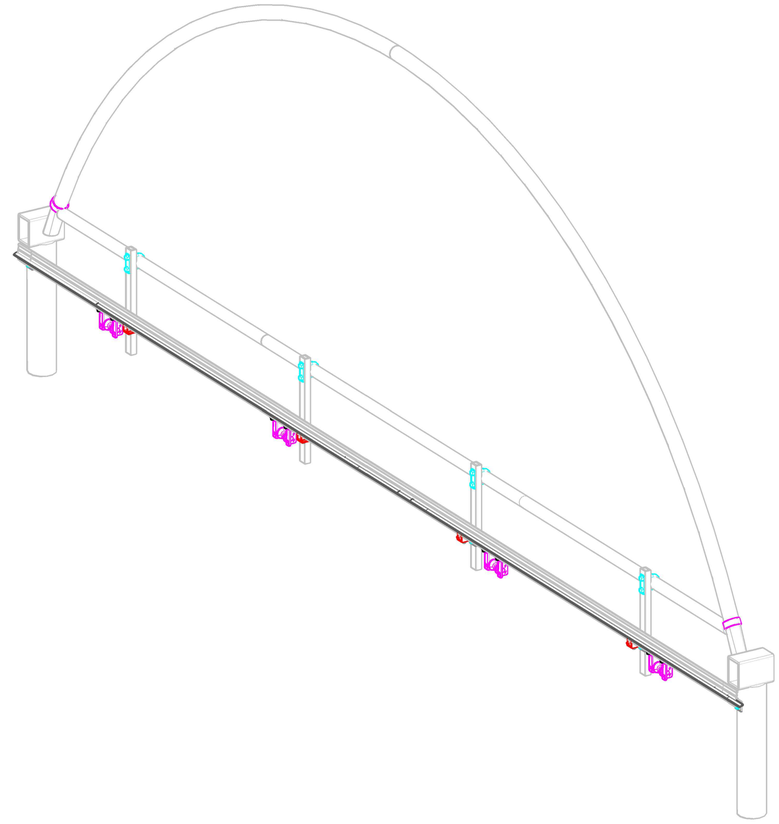
FOR EXACT LOCATION OF PARTS SHOWN PLEASE REFER TO LAYOUT SHEET THAT CAME WITH THE MATERIALS OF THE SYSTEM.

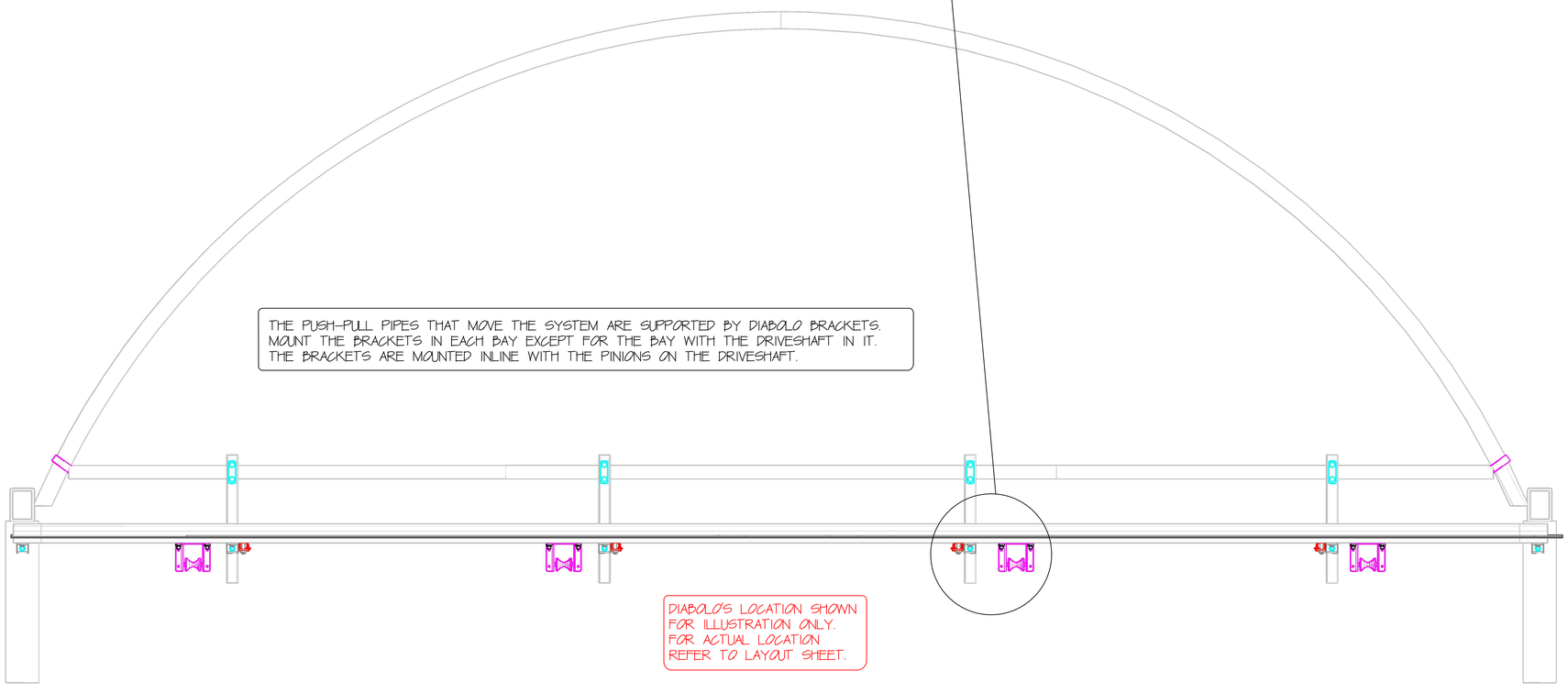
SCALE: None	DATE	PROJECT:	TOTAL ENERGY GROUP
DRAWN: Philip van Spronsen	10-17-2016		
CHECKED:		NAME:	DRIVESHAFT INSTALL FLAT THG-40
CHANGED:			
		FORMAT: A1	DRAWING NUMBER: 2016-01
			SHEET NO.: 03
		REMARKS:	

TOTAL ENERGY Group
integrated greenhouse technology

1	S-MH10615	HAMERHEAD BOLT, M6 X 15
2	S-02-52-012A	DIABOLO BRACKET, BENT

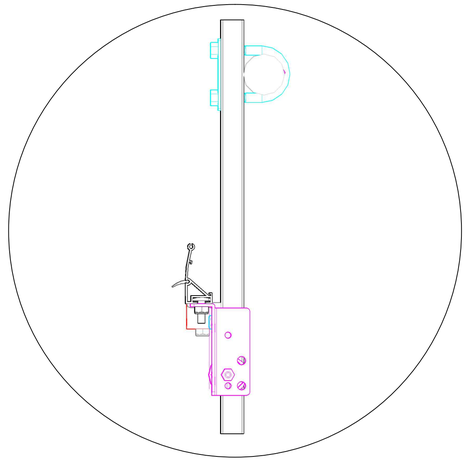






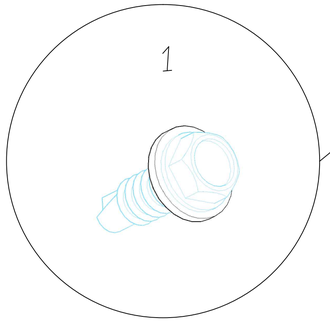
THE PUSH-PULL PIPES THAT MOVE THE SYSTEM ARE SUPPORTED BY DIABOLO BRACKETS.
MOUNT THE BRACKETS IN EACH BAY EXCEPT FOR THE BAY WITH THE DRIVESHAFT IN IT.
THE BRACKETS ARE MOUNTED INLINE WITH THE PINIONS ON THE DRIVESHAFT.

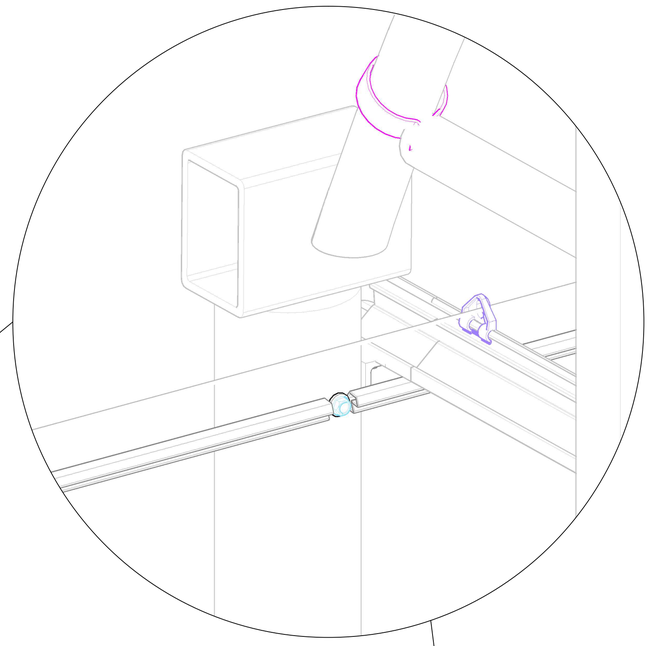
DIABOLO'S LOCATION SHOWN FOR ILLUSTRATION ONLY.
FOR ACTUAL LOCATION REFER TO LAYOUT SHEET.

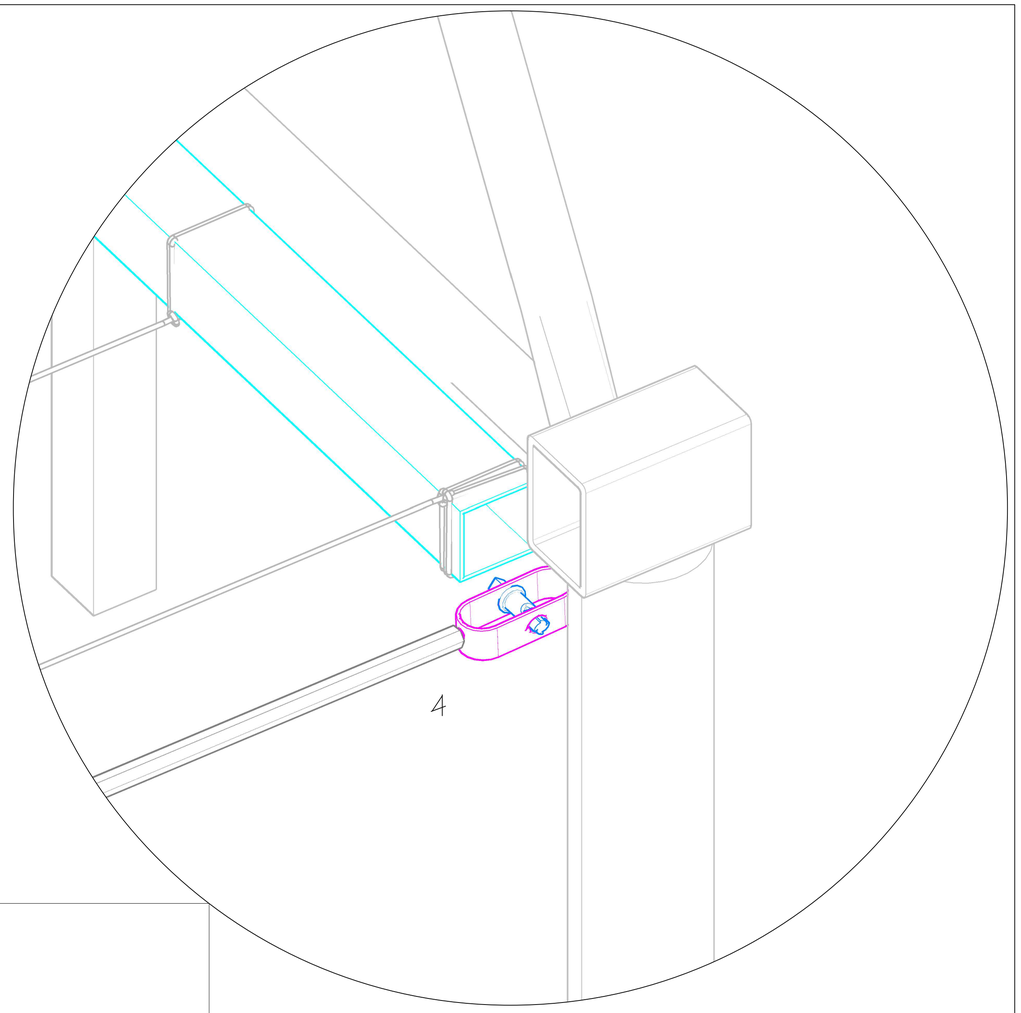


SCALE: None	DATE	PROJECT: SHADE MANUAL	
DRAWN: Philip van Spronsen	10-17-2016		
CHECKED:		NAME: DIABOLO INSTALL FLAT THG-40	
CHANGED:			
TOTAL ENERGY GROUP integrated greenhouse technology		FORMAT A1	DRAWING NUMBER 2016-01 / SHEET NO. 04
		REMARKS:	

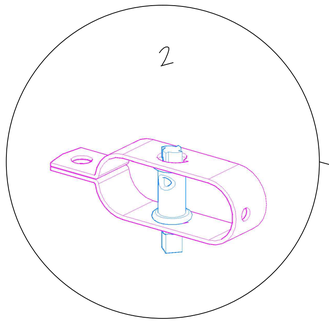
1	S-C0781	TEK SCREW, 10-16X3/4" W/WASHER
2	S-S123	WIRE TENSIONER, #3
3	S-S099A	CLIP TUBE
4	S-S013	POLYCOATED CABLE

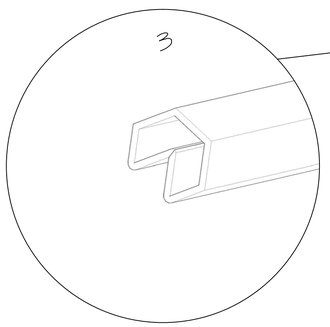


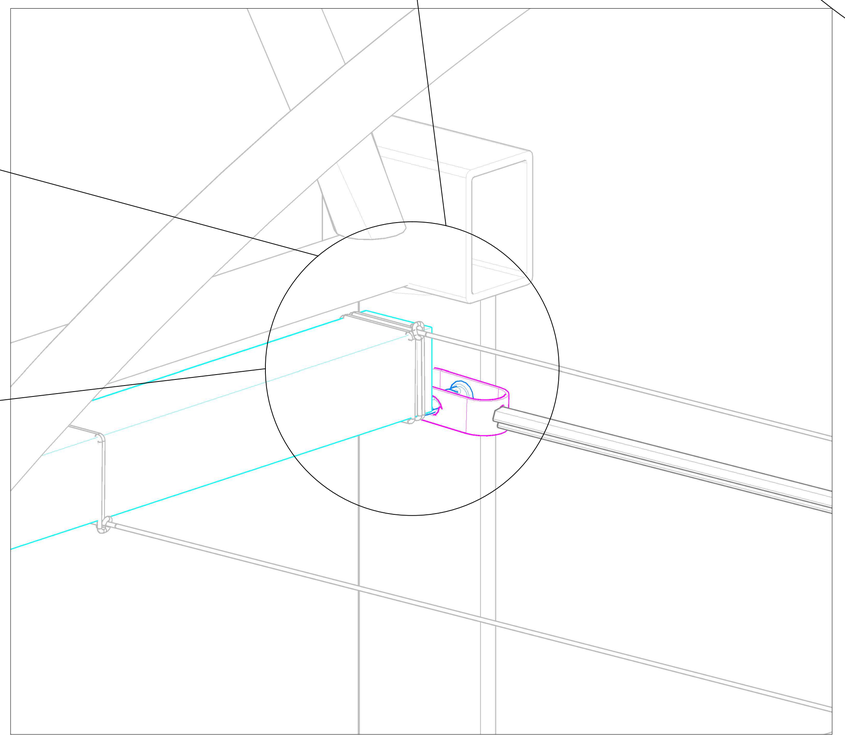




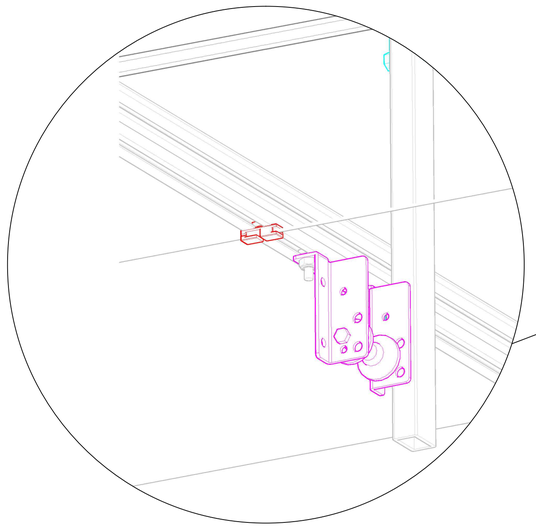
INSTALL POLYCOVERED CABLES IN THE CORNERS OF THE SYSTEM. THESE CABLES ARE USED TO MOUNT THE CLIPTUBE AND SUPPORT THE CLOTH. USE A WIRE STRAINER ON ONE SIDE OF THE CABLE AND TEKSCREWS AT EVERY GREENHOUSE POST.

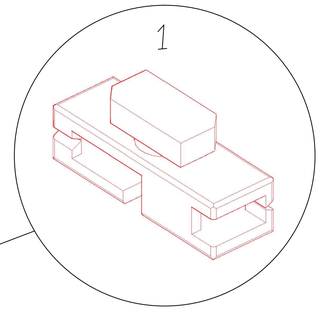






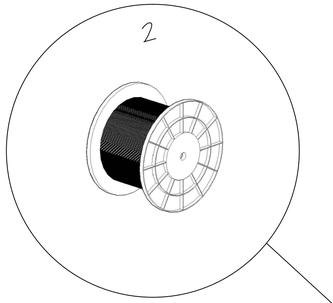
SCALE: None	DATE	PROJECT:	TOTAL ENERGY GROUP
DRAWN: Philip van Spronsen	10-27-2016		
CHECKED:		NAME:	POLYCOVERED CABLE INSTALL THG-A0
CHANGED:			
TOTAL ENERGY Group integrated greenhouse technology		FORMAT A1	DRAWING NUMBER 2016-01 / SHEET NO. 05
		REMARKS:	

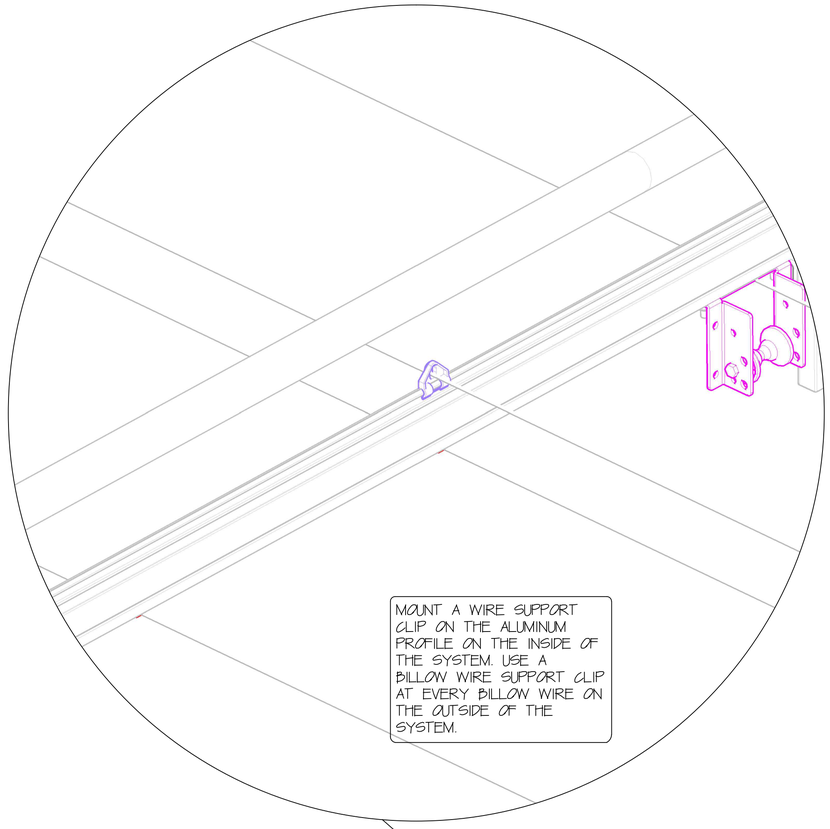




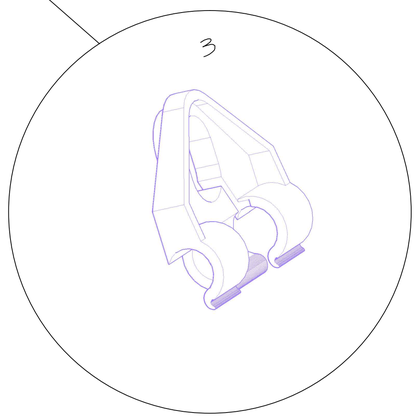
1	S-S132	LEADING EDGE BOTTOM GUIDE
2	S-S060A	ATLAS WIRE, BLACK
3	S-S133	LEADING EDGE TOP GUIDE

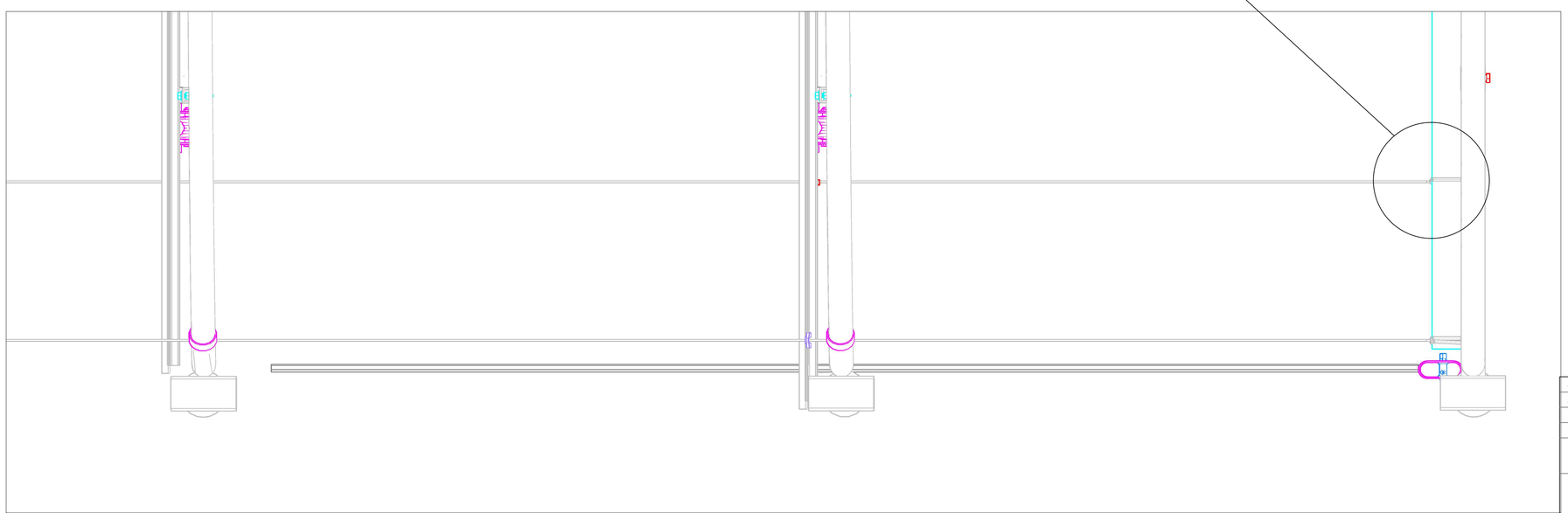
INSTALL CLOTH SUPPORT WIRES EVERY 16" FROM THE SQUARE TUBING ON ONE END OF THE GREENHOUSE TO THE OTHER END. INSTALL A BILLOW WIRE EVERY OTHER WIRE. THESE WIRES NEED TO SUPPORT THE CLOTH AND THEREFORE NEED TO BE TENSIONED. SEE THE ADDITIONAL INSTRUCTIONS ON HOW TO PROPERLY INSTALL THESE WIRES.



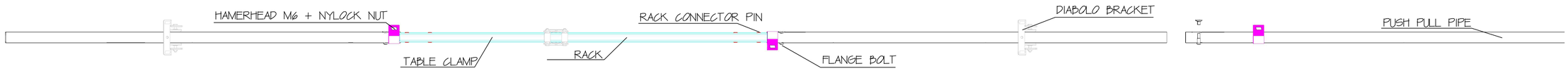


MOUNT A WIRE SUPPORT CLIP ON THE ALUMINUM PROFILE ON THE INSIDE OF THE SYSTEM. USE A BILLOW WIRE SUPPORT CLIP AT EVERY BILLOW WIRE ON THE OUTSIDE OF THE SYSTEM.



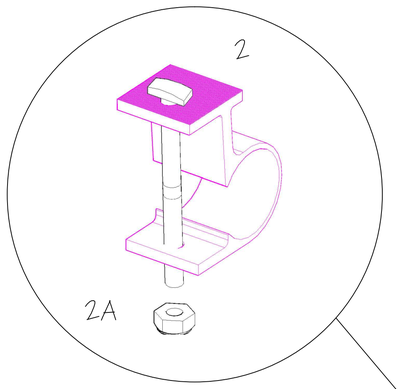


SCALE: None	DATE	PROJECT:	TOTAL ENERGY GROUP
DRAWN: Philip van Spronsen	10-27-2016		
CHECKED:		NAME:	POLYCOVERED CABLE INSTALL THG-A0
CHANGED:			
TOTAL ENERGY GROUP integrated greenhouse technology		FORMAT A1	DRAWING NUMBER 2016-01
			SHEET NO. 05a
		REMARKS:	

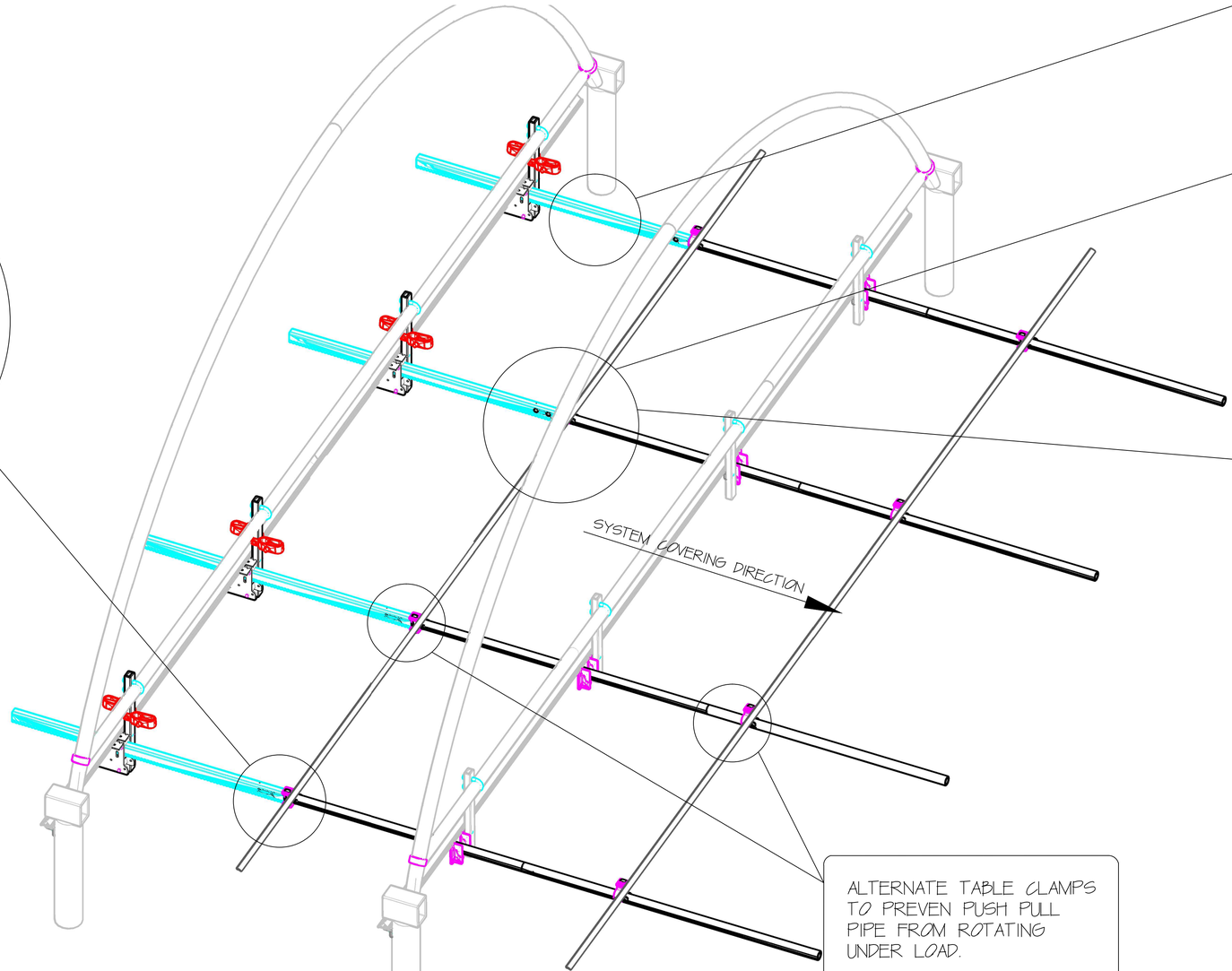


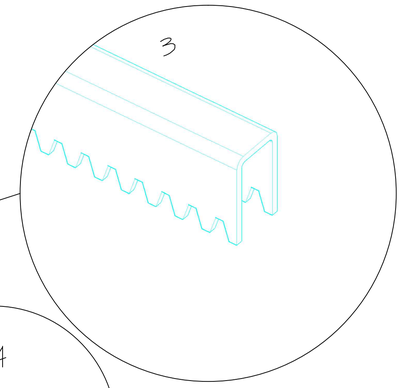
1	S-S104A	FLANGE NUT M6
1A	S-S104	FLANGE BOLT, M6 27/32MM
2	S-S022	TABLE CLAMP
2A	S-MHH06075	HAMERHEAD M6 + NUT
3	P-THG40	RACK, SYSTEM SPECIFIC
4		RACK CONNECTOR PIN
5	PKSD32	COUPLING PIECE 32MM

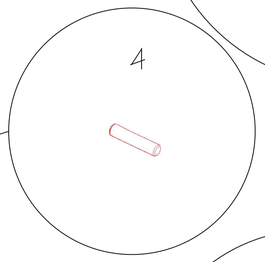
INSTALL THE SYSTEM IN THE CLOSE POSITION TO MAKE SURE THAT ALL THE RUBBERS MEET WHEN THE SYSTEM IS FULLY CLOSED.

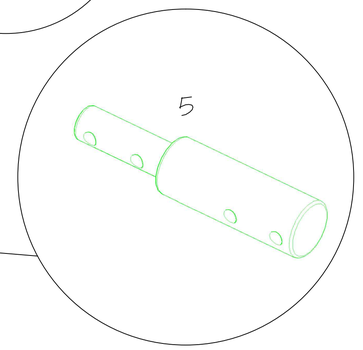


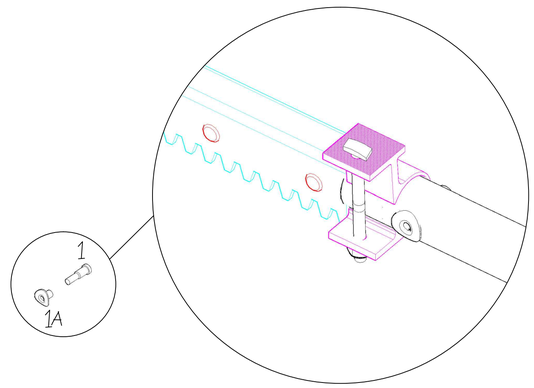
USE A REGULAR M6 NUT TO SET THE HAMERHEAD BOLT TO THE ALUMINUM PROFILE.











ALTERNATE TABLE CLAMPS TO PREVEN PUSH PULL PIPE FROM ROTATING UNDER LOAD.

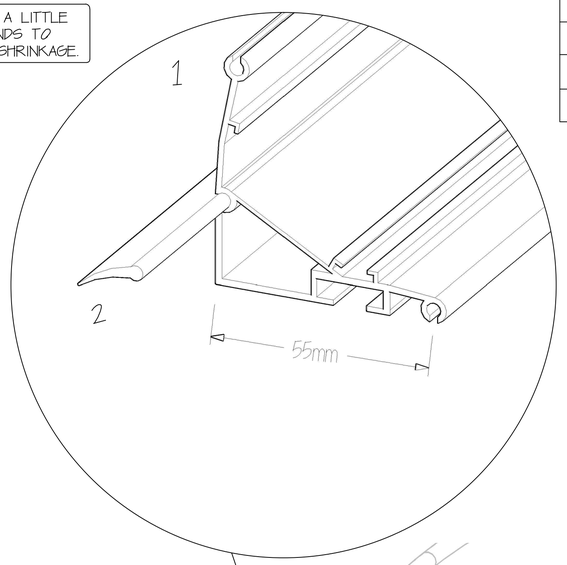
THE PUSH-PULL PIPES THAT MOVE THE SYSTEM ARE SUPPORTED BY DIABOLO BRACKETS. MOUNT THE BRACKETS IN EACH BAY EXCEPT FOR THE BAY WITH THE DRIVESHAFT IN IT. THE BRACKETS ARE MOUNTED INLINE WITH THE PINIONS ON THE DRIVESHAFT.

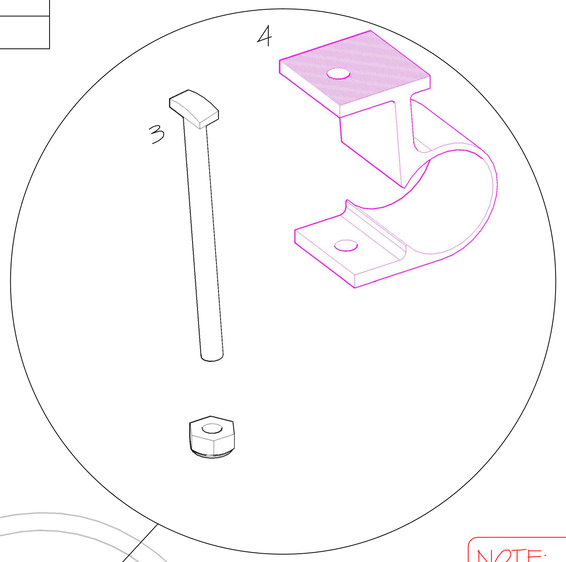
SCALE: None	DATE	PROJECT:	TOTAL ENERGY GROUP
DRAWN: Philip van Spronsen	10-27-2016		
CHECKED:		NAME:	RACK INSTALL FLAT THG-A0
CHANGED:			
		FORMAT: A1	DRAWING NUMBER: 2016-01
		SHEET NO.: 06	
		REMARKS:	

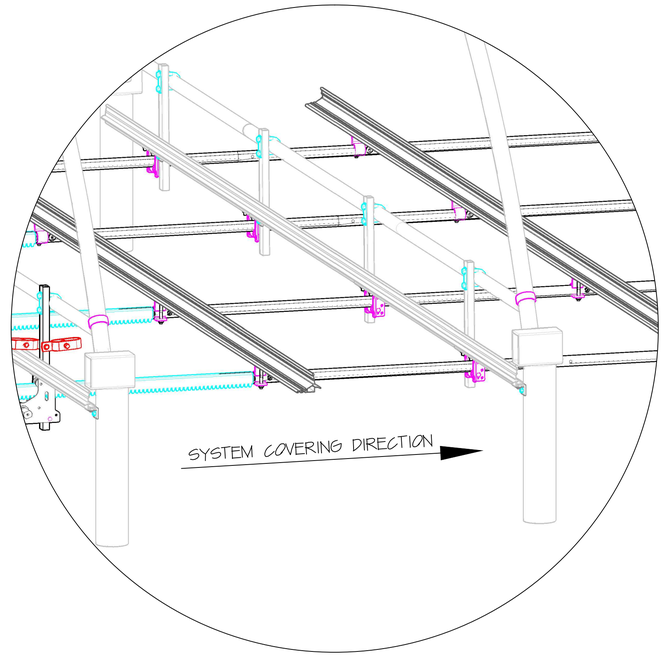
TOTAL ENERGY Group
integrated greenhouse technology

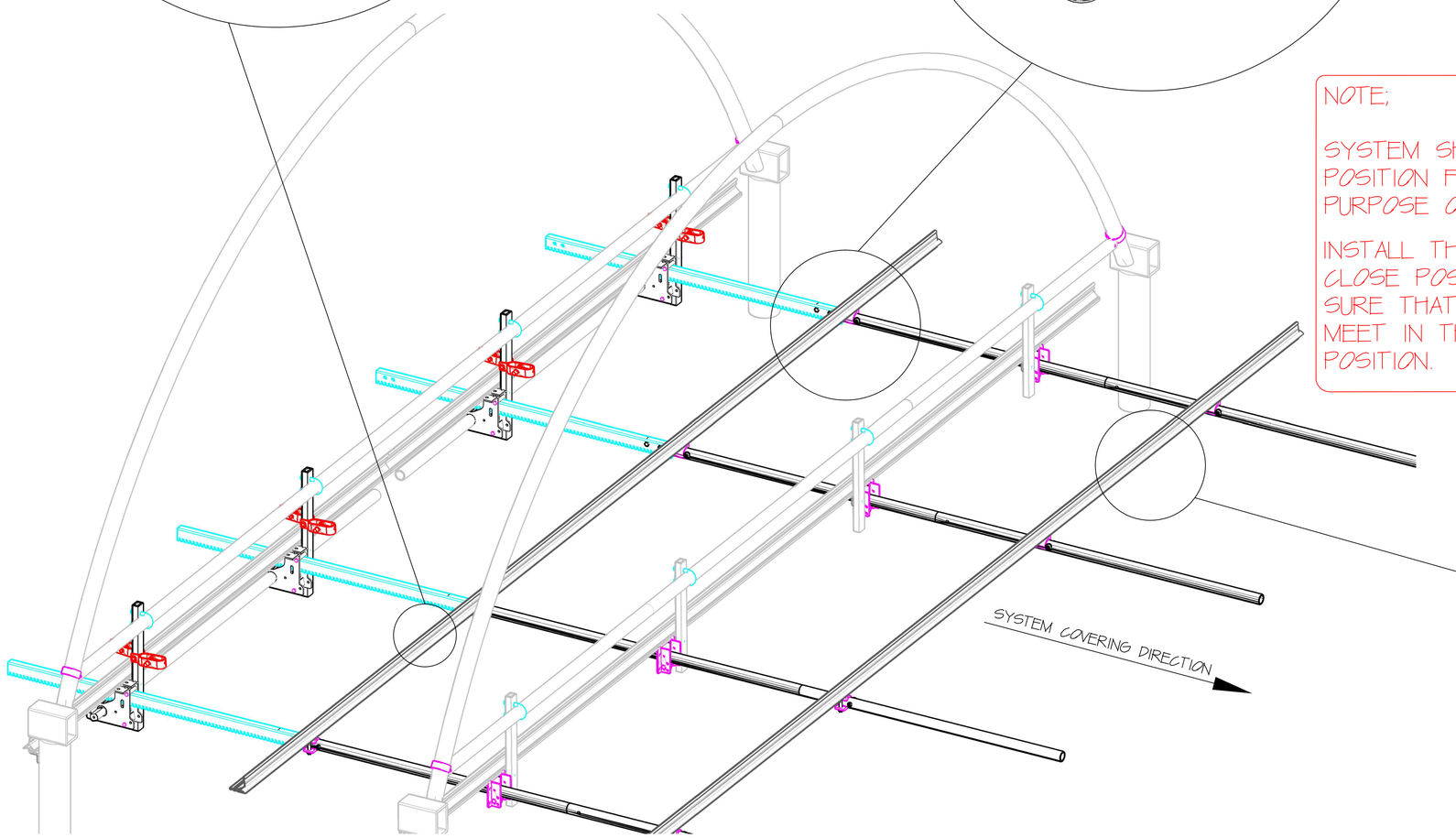
KEEP THE RUBBER A LITTLE LONGER AT THE ENDS TO COMPENSATE FOR SHRINKAGE.

1	S-S1128	LEADING EDGE PROFILE, 55MM
2	S-S1135	20MM RUBBER FOR PROFILE, 200M
3	S-MHM06075	HAMMERHEAD BOLT, M6 X 75
4	S-S022	TABLE CLAMP, 32MM
5	S-S1131-5	LEADING EDGE COUPLER
6	S-M06010	M6 X 10 BOLT





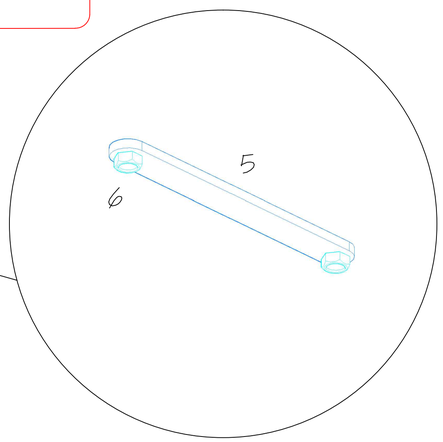




NOTE;

SYSTEM SHOWN IN OPEN POSITION FOR ILLUSTRATION PURPOSE ONLY.

INSTALL THE SYSTEM IN THE CLOSE POSITION TO MAKE SURE THAT ALL THE RUBBERS MEET IN THE FULLY CLOSED POSITION.



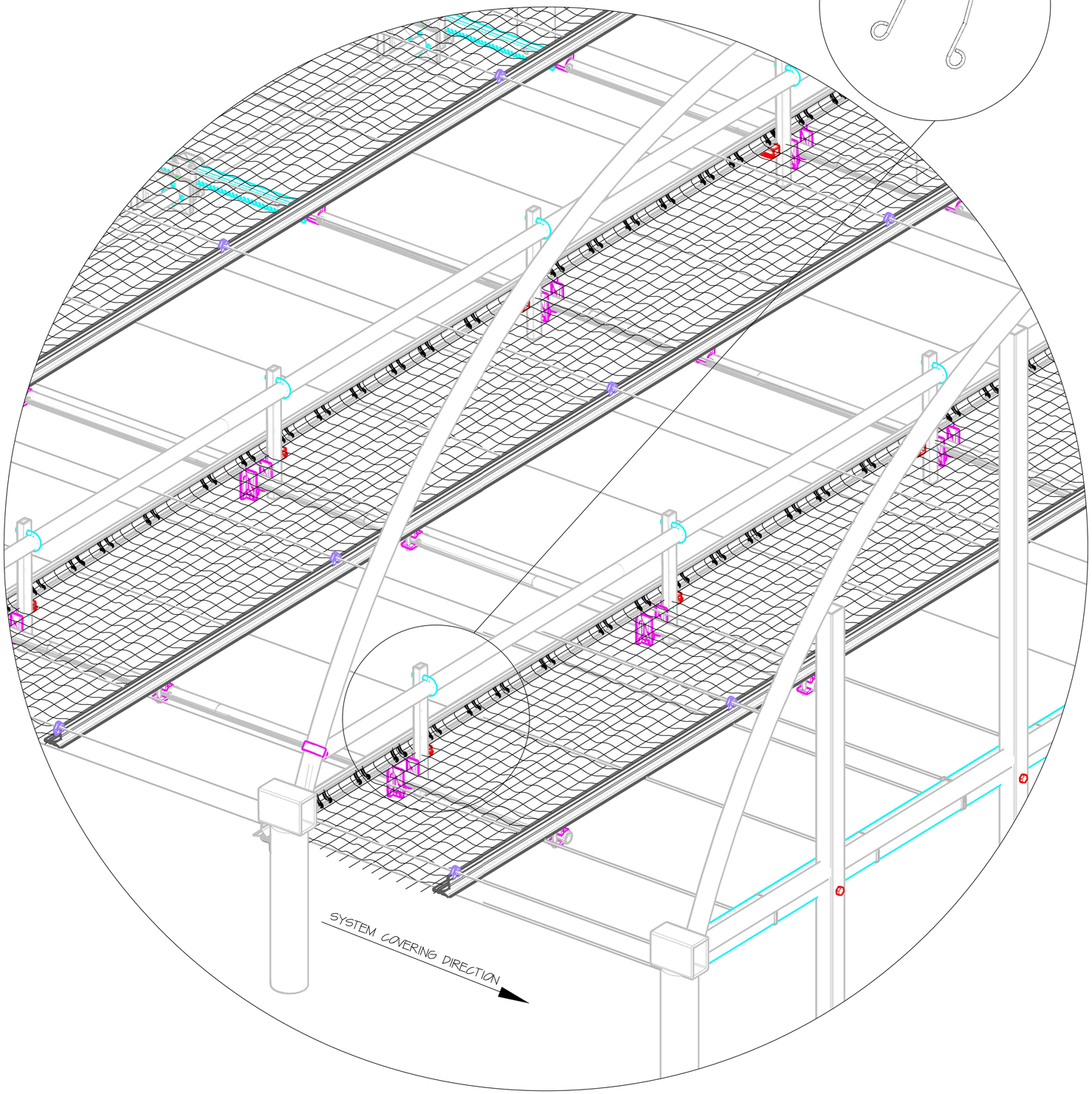
THE LEADING EDGE IS MOUNTED IN A SIMILAR FASHION AS THE STATIONARY PROFILE. IT IS IMPERATIVE THAT THE RUBBERS ON THESE PROFILES MEET WHEN THE SYSTEM IS CLOSED. INSTALL THE PROFILE WITH THE SYSTEM IN THE CLOSED POSITION TO MAKE SURE THAT ITS MOUNTED IN THE SAME POSITION IN EACH BAY.

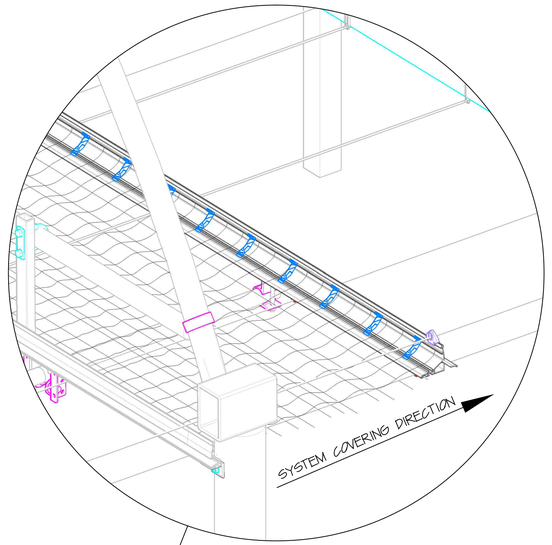
SCALE: None	DATE	PROJECT:	SHADE INSTALL MANUAL
DRAWN: Philip van Spronsen	10-17-2016		
CHECKED:			
CHANGED:		NAME:	LEADING EDGE INSTALL FLAT THG-AO
TOTAL ENERGY Group integrated greenhouse technology		FORMAT A1	DRAWING NUMBER 2016-01 / SHEET NO. 07
		REMARKS:	

PULL THE CLOTH ONTO THE WIRE SUPPORTS FROM ONE SIDE. SLIP A 2" PVC PIPE OVER THE CLIPTUBE TO AID WITH THIS PROCESS. ATTACH CLOTH ON BOTH SIDES TO THE ALUMINUM PROFILE USING THE STAINLESS STEEL CLOTH CLAMPS EVERY 12".

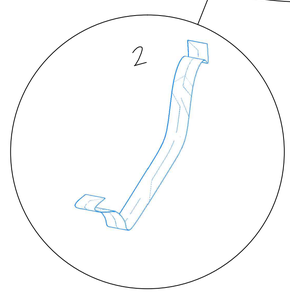
1	S-S134	MULTI CLIP FOR 25MM PROFILE
2	S-S134A	MULTI CLIP FOR 55MM PROFILE

1





2



SCALE: None	DATE	PROJECT: SHADE INSTALL MANUAL	
DRAWN: Philip van Spronsen	10-17-2016		
CHECKED:			
CHANGED:		NAME: CLOTH INSTALL FLAT THG-40	
TOTAL ENERGY Group integrated greenhouse technology		FORMAT A1	DRAWING NUMBER 2016-001 / SHEET NO. 08
		REMARKS:	