



DISC STEERING

DISC FRAME CONSTRUCTION

016-8000-063EN REV. A

Construction Manual
(English) (Original)

RAVEN

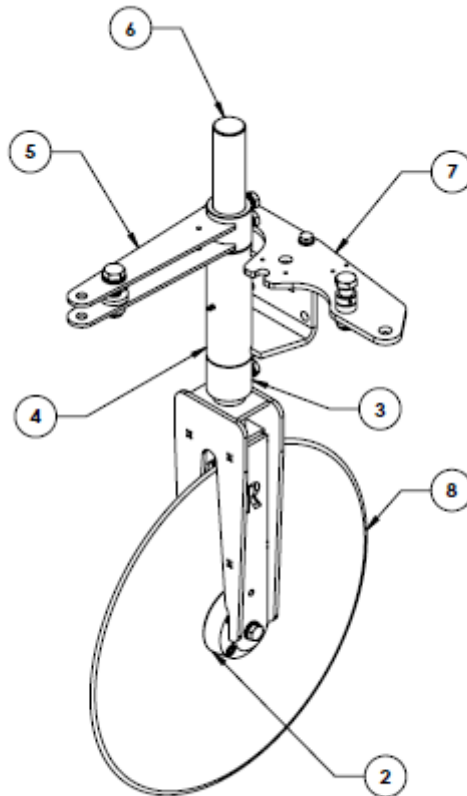
CONTENT

1	DISC ASSEMBLY	3
1.1	DISC ASSEMBLY.....	4
2	OBSTACLE PROTECTION	5
3	MOUNTING HEIGHT AND SOIL DEPTH.....	6
4	DISC FRAME	7
4.1	DISC FRAME ASSEMBLY	10
5	MISCELLANEOUS PARTS.....	12
6	MACHINE SPECIFIC ADAPTER FRAMES KITS	14
7	ADAPTER PARTS	24
8	DISC STEERING HYDRAULIC HOSE KIT	33

1 DISC ASSEMBLY

Depending on the size and type of implement, one or more discs coulters are installed behind the implement. For light drills and implements one disc coultter is often sufficient. Heavier and larger machines require two or more steering discs, that are connected by means of a rod. For folding implements, or when combined with obstacle protection, the rod is replaced by two interconnected hydraulic cylinders.

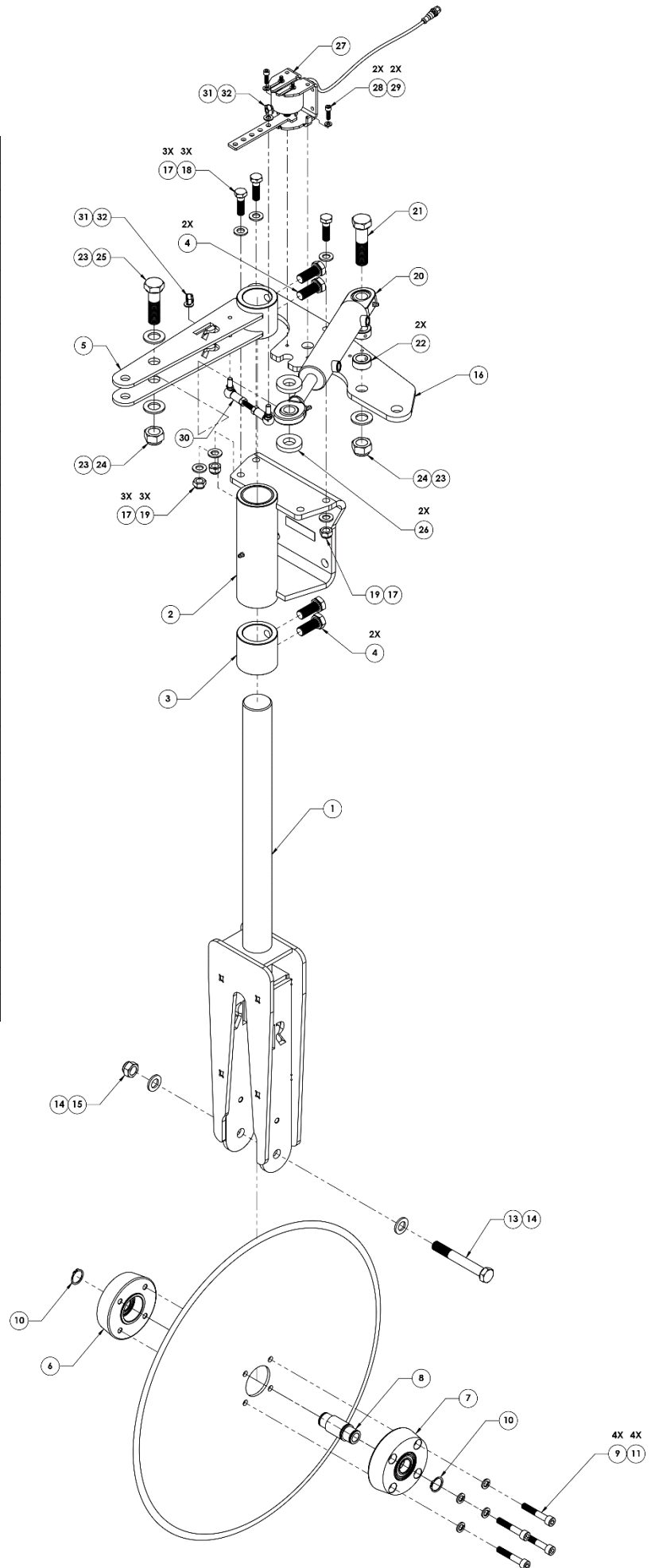
11178000099 - KIT, DISC ASSEMBLY, 60CM



ITEM	QTY	PART NUMBER	DESCRIPTION	SPECIAL NOTE
1	1	11178000344	KIT, MOUNTING, DISC	NOT NUMBERED
2	1	11178000345	KIT, DISC, BEARING	
3	1	11078000128	RETAINING SLEEVE, DISC FORK	
4	1	11168000038	DISC, HEAD TUBE	
5	1	11168000037	DISC, STEERING ARM	
6	1	11168000036	DISC, FORK, 60CM	
7	1	11078000127	MOUNTING PLATE, DISC, CYLINDER	
8	1	13218000035	DISC, 60CM	
9	1	11078000126	WELD PLATE, DISC, 150X180	NOT SHOWN

1.1 DISC EXPLODED VIEW

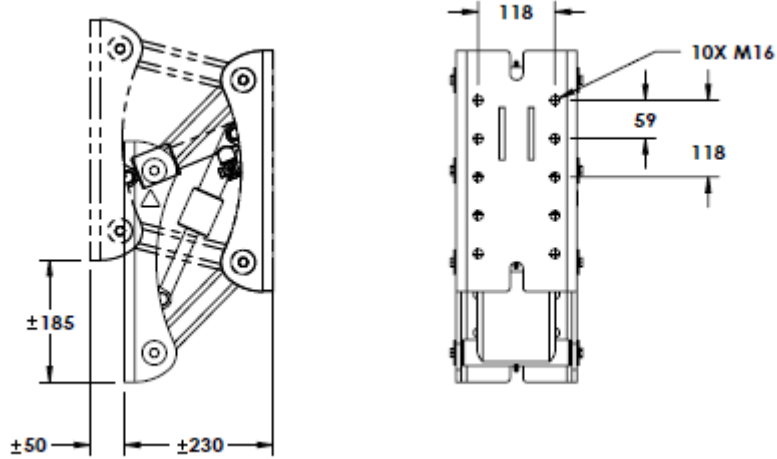
32	2	312-6001-038K	HEX NUT, NYLOCK, DIN985, M10 X 1.25, CLASS 10
31	2	313-6000-013	Washer DIN125 - Zn - M8
30	1	117-8000-307	KIT, WAS LINK, M8 210mm, RAD-RAD
29	2	313-6000-010	Washer DIN125 - Zn - M6
28	2	311-4060-136	Hexagon Socket Cap Head Screw DIN912 8.8 - M6x20
27	1	063-8000-066	WAS ASY, BRCKT, 12V 90°, 35CM
26	2	313-6003-022	WASHER, HEAVY, DIN7349 - ZN - M20
25	1	311-4050-447	Hex Bolt DIN931 8.8 - M20x70
24	2	312-6001-107K	HEX NUT, NYLOCK, DIN985, M20 X 2.5, CLASS 8
23	3	313-6000-031	Washer DIN125 - Zn - M20
22	2	321-6000-007	SET COLLAR, DIN705, 20X32X14
21	1	311-4050-449	Hex Bolt DIN931 8.8 - M20x80
20	1	334-8004-001	CYLINDER, 40-20-100, NON-ADJUSTABLE
19	3	312-6001-048K	HEX NUT, NYLOCK, DIN985, M12 X 1.25, CLASS 10
18	3	311-4050-269	Hex Bolt DIN931 8.8 - M12x40
17	6	313-6000-019	Washer DIN125 - Zn - M12
16	1	107-8000-127	MOUNTINGPLATE, DISK, CYLINDER
15	1	312-6001-077K	HEX NUT, NYLOCK, DIN985, M16 X 2, CLASS 8
14	2	313-6000-025	Washer DIN125 - Zn - M16
13	1	311-4050-371	Hex Bolt DIN931 8.8 - M16x120
12	1	321-8000-035	DISK 60CM
11	4	313-6001-016	Spring Lock Washer DIN127 - Zn - M10
10	2	335-0000-309	RING, RETAINING, EXT, DIN471, 25MM
9	4	311-4062-230	Hexagon Socket Cap Head Screw DIN912 12.9 - M10x60
8	1	107-8000-049	AXLE, DISC BEARING HUB
7	1	107-8000-051	Disk Bearing Hub, Right, w/ Bearing
6	1	107-8000-050	Disk Bearing Hub, Left, w/ Bearing
5	1	116-8000-037	DISK, STEERING ARM
4	4	311-4055-355	Hex Bolt DIN933 8.8 - M16x40
3	1	107-8000-128	RETAINING SLEEVE, DISK FORK
2	1	116-8000-038	DISK, HEAD TUBE
1	1	116-8000-036	DISK, FORK 60CM
ITM	QTY	PART NUMBER	DESCRIPTION



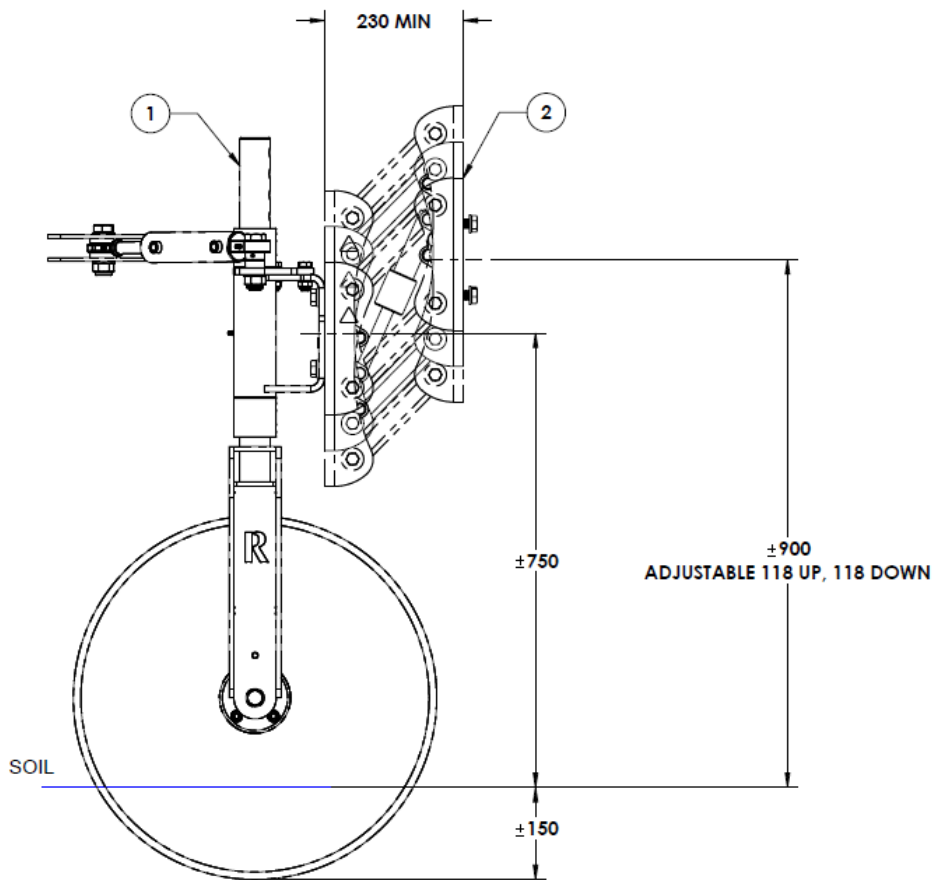
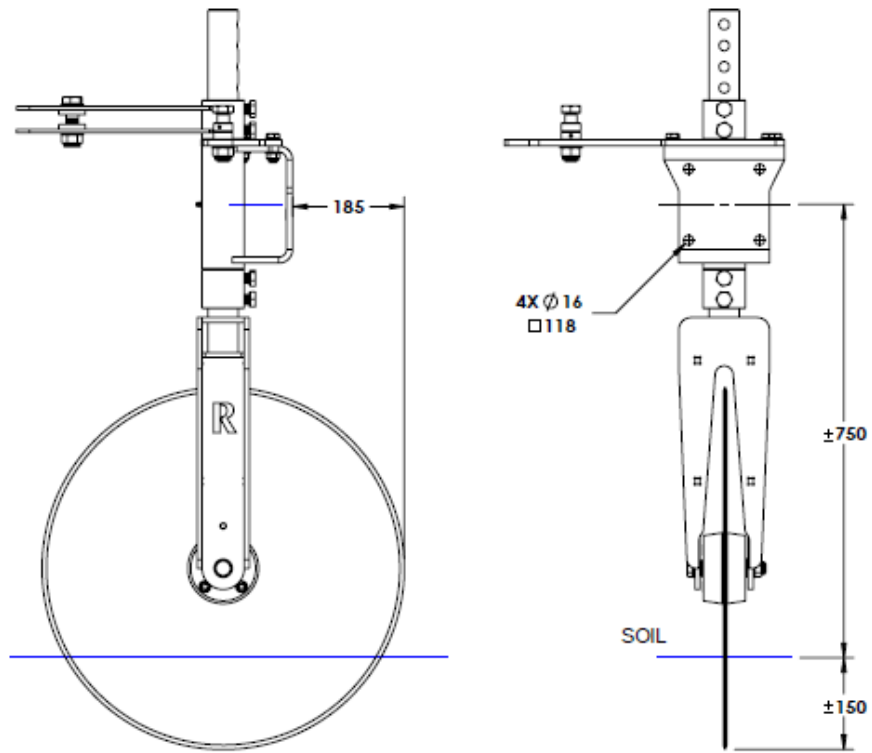
2 OBSTACLE PROTECTION

The hydraulic obstacle protection enables the steering discs to retract whenever it hits a stone. Additional benefit is the discs may easily be lifted when the implement is detached.

10638000039 – ASSEMBLY, OBSTACLE PROTECTION

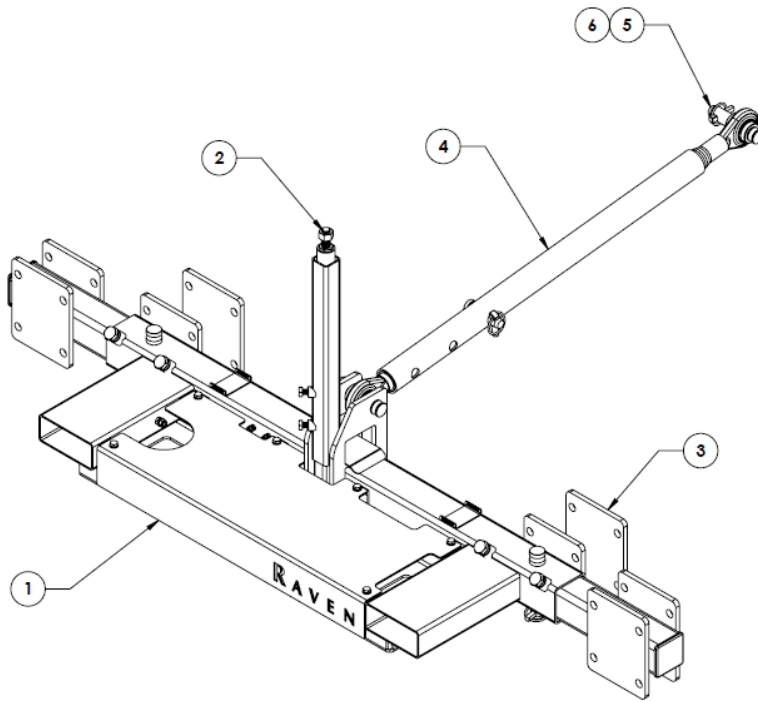


3 MOUNTING HEIGHT AND SOIL DEPTH



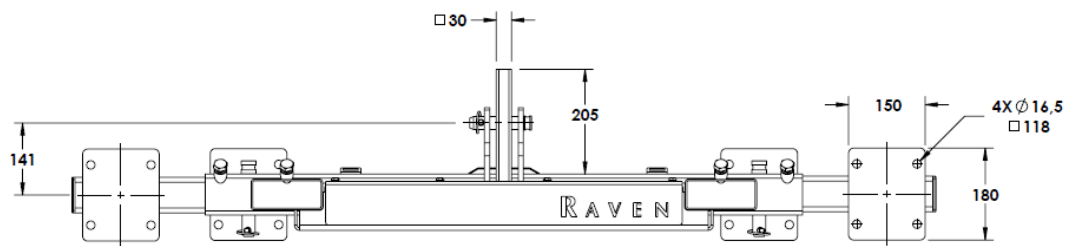
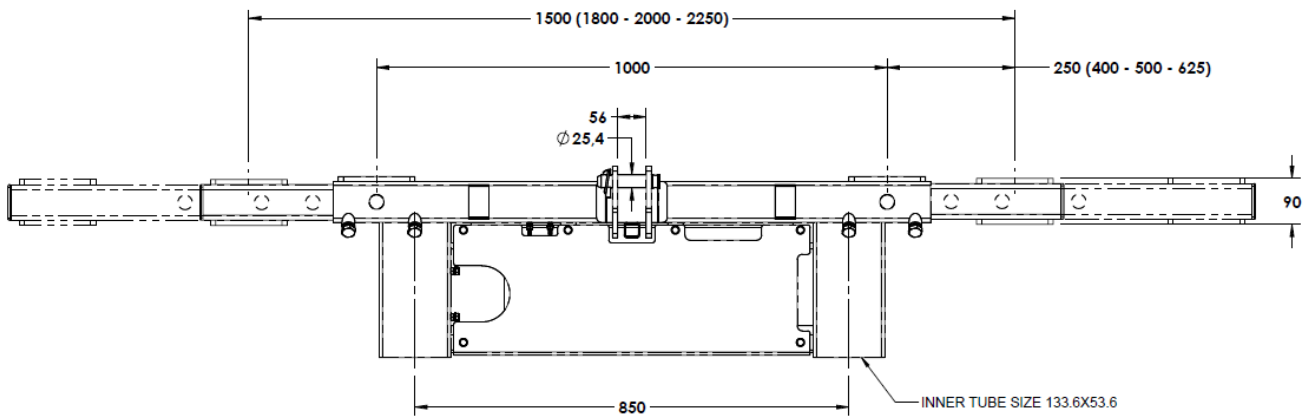
4 DISC FRAME

11178000372 - KIT, DISC FRAME, GENERIC, 2 DISCS, TRACK WIDTH 150/180/200/225CM

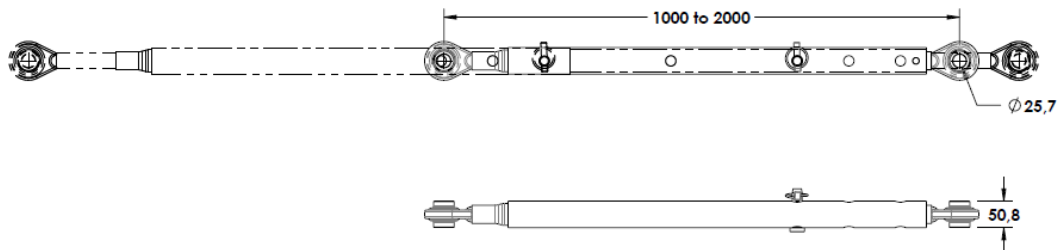


ITEM	QTY	PART NUMBER	DESCRIPTION	SPECIAL NOTE
1	1	10638000124	DISC FRAME, GENERIC	
2	1	11168000007	DISC FRAME ANTENNA PIPE, 0.5M	
3	2	11078000126	WELDPLATE, DISC, 150X180	
4	1	11168000042	TELESCOPIC TOPLINK 1000-2000MM	
5	1	13218000008	LINKAGE PIN 25X83X12	
6	1	13218000011	LINCHPIN, ROUND, 11X36	

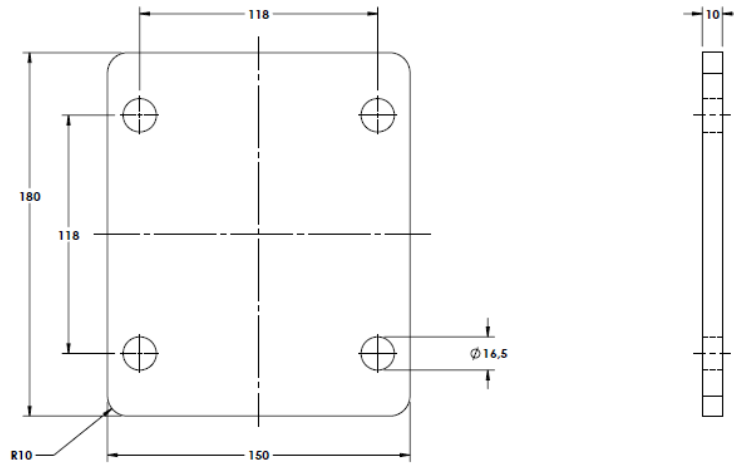
10638000124 – DISC FRAME, GENERIC



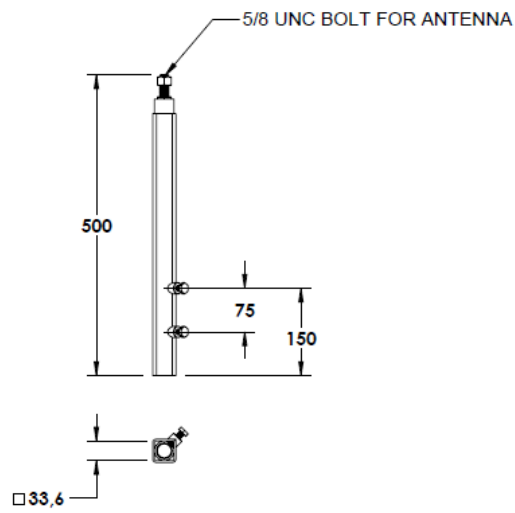
11168000042 – TELESCOPIC TOPLINK, 1000-2000MM



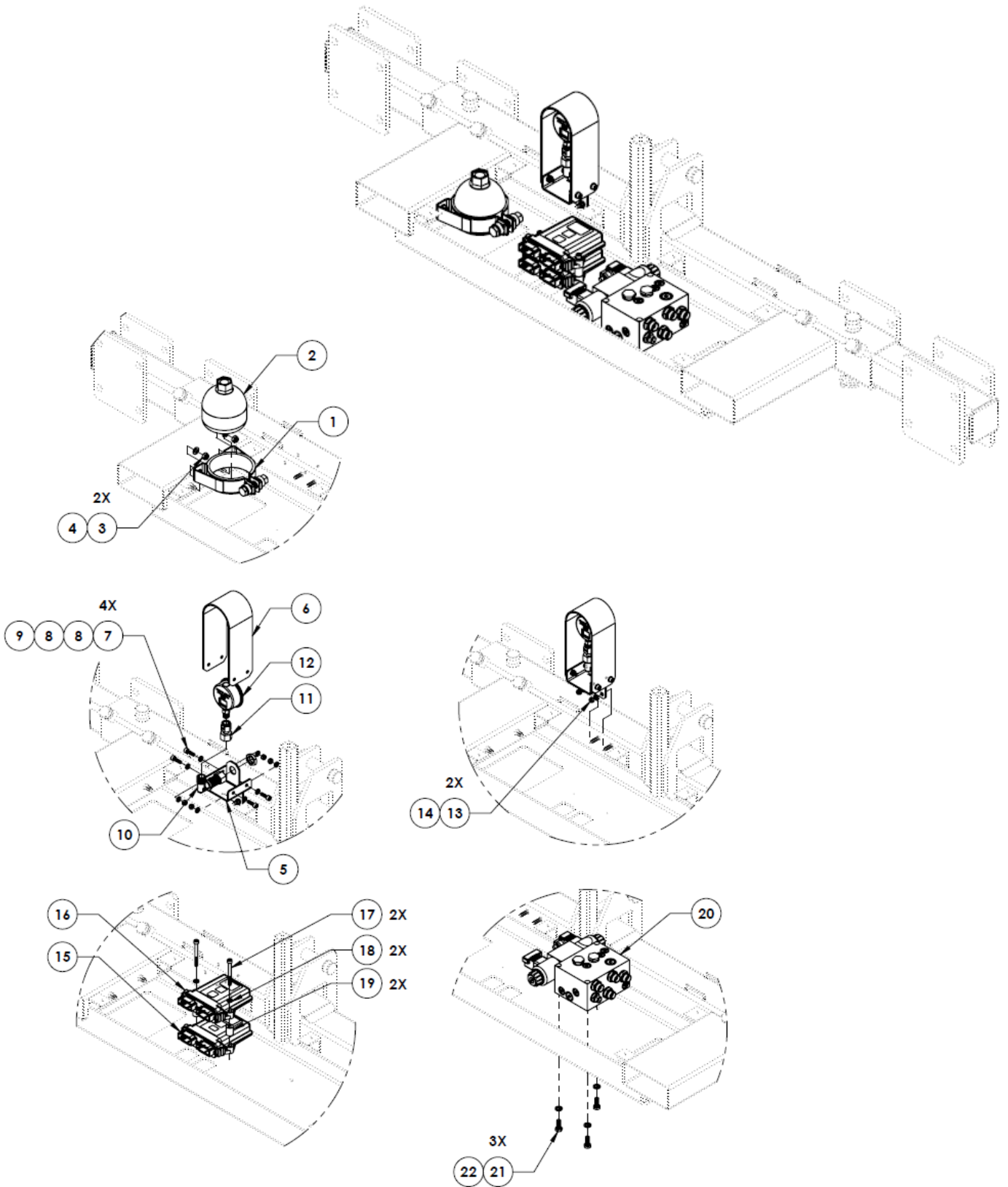
11078000126 – WELD PLATE, DISC, 150X180



11168000007 – DISC FRAME ANTENNA PIPE, 0.5M



4.1 DISC FRAME ASSEMBLY

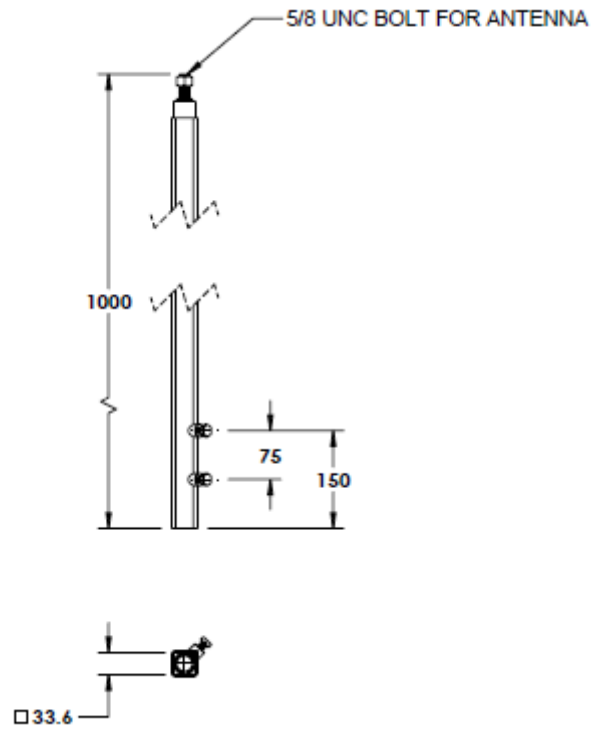


ITEM	QTY	PART NUMBER	DESCRIPTION	SPECIAL NOTE
1	1	11030159018	BRACKET, ACCUMULATOR, Ø91-96MM	
2	1	13348001018	ACCUMULATOR, 0.35L 210/30BAR	
3	2	13126001027K	HEX L. NUT DIN985-8 M8x1.25 ZN	
4	2	13136001013K	SPRING LOCK WASHER, ZINK, DIN127, M8	
5	1	11078000129	BRACKET, MANOMETER	
6	1	11078000130	BRACKET, MANOMETER, PROTECTION	
7	4	13114060136K	SCREW, HEXAGON SOCKET CAP, DIN912, 8.8, M6X20	
8	4	13126001017K	HEX LOCK NUT DIN985-8 M6X1.0 ZN	
9	8	13136000010K	WASHER, ZN, DIN125A M6	
10	1	13330012452	FITTING, BULKHEAD, 12L, 90DEG	
11	1	13330012492	GAUGE FITTING, 12L-R1/4, F-F	
12	1	14170001033	GAUGE, PRESSURE, 0-250BAR	
13	2	13126001017K	HEX LOCK NUT DIN985-8 M6X1.0 ZN	
14	2	13136000010K	WASHER, ZN, DIN125A M6	
15	1	10630174070*	ECU, ISO, TC1, LOW SPEED STEERING	
16	1	10630173935*	ECU, IMPL. DRIVER UNIT (IDU)	
17	2	13114060144K	SCREW, HEXAGON SOCKET CAP, DIN912, 8.8, M6X60	
18	2	13136000010K	WASHER, ZN, DIN125A M6	
19	2	11041000270	SPACER NYLON 6.3X20X15	
20	1	13348000001	MANIFOLD, IMPLEMENT, LS, 5L	
21	3	13114050179K	HEX BOLT, DIN931 8.8 - M8X20	
22	3	13136001013K	SPRING LOCK WASHER, ZINK, DIN127, M8	

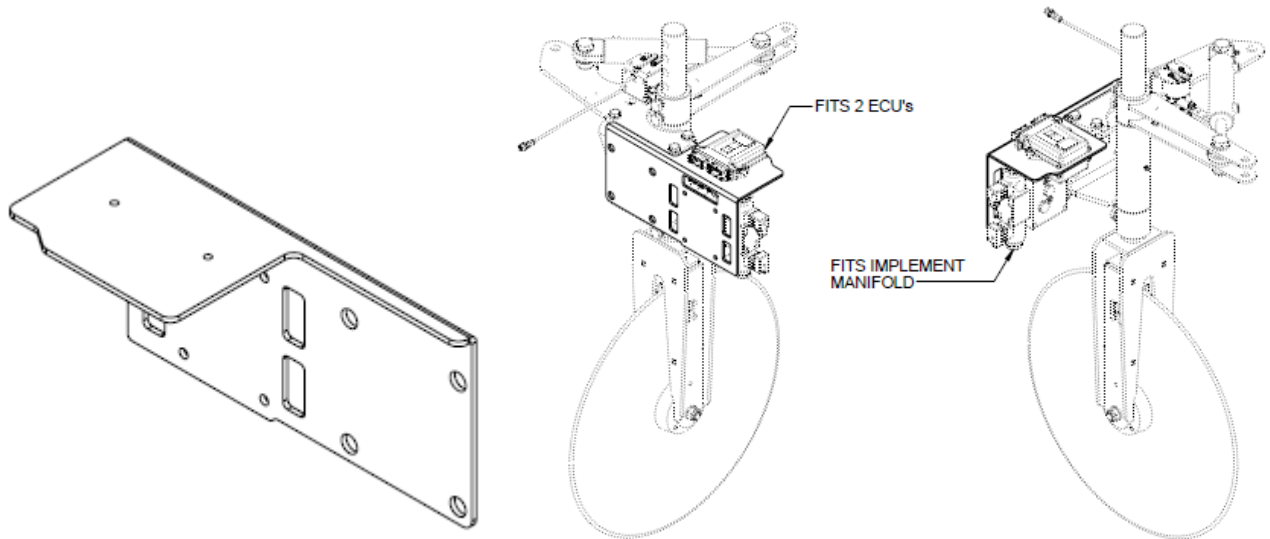
*If the IDU and SC1 are stacked, make sure that the SC1 is mounted nearest to the implement frame.

5 MISCELLANEOUS PARTS

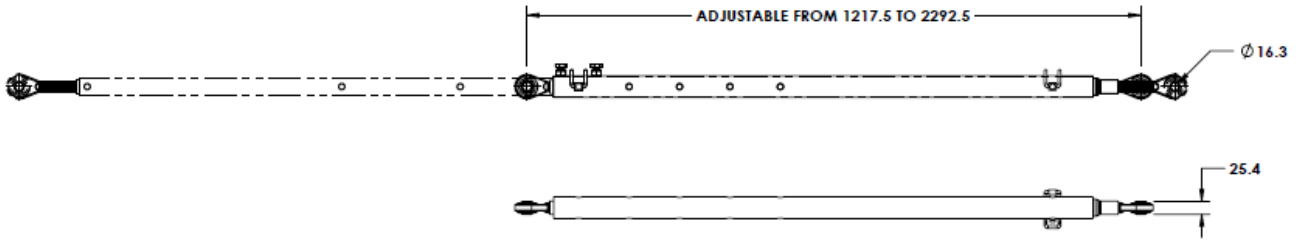
11168000005 – DISC FRAME ANTENNA PIPE, 1.0M



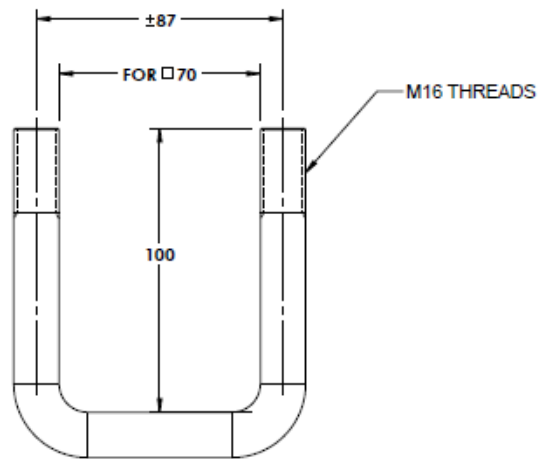
11078000026 - DISC MANIFOLD BRACKET



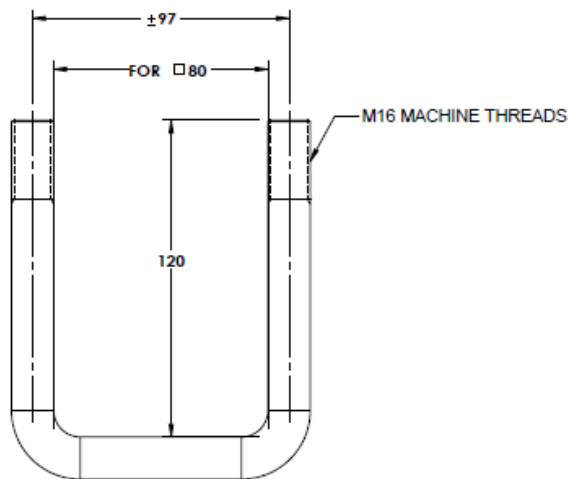
10638000156 – TRACKROD, TELESCOPIC, 150-225



1319000014 – U-BOLT, SQUARE, M16 70X70

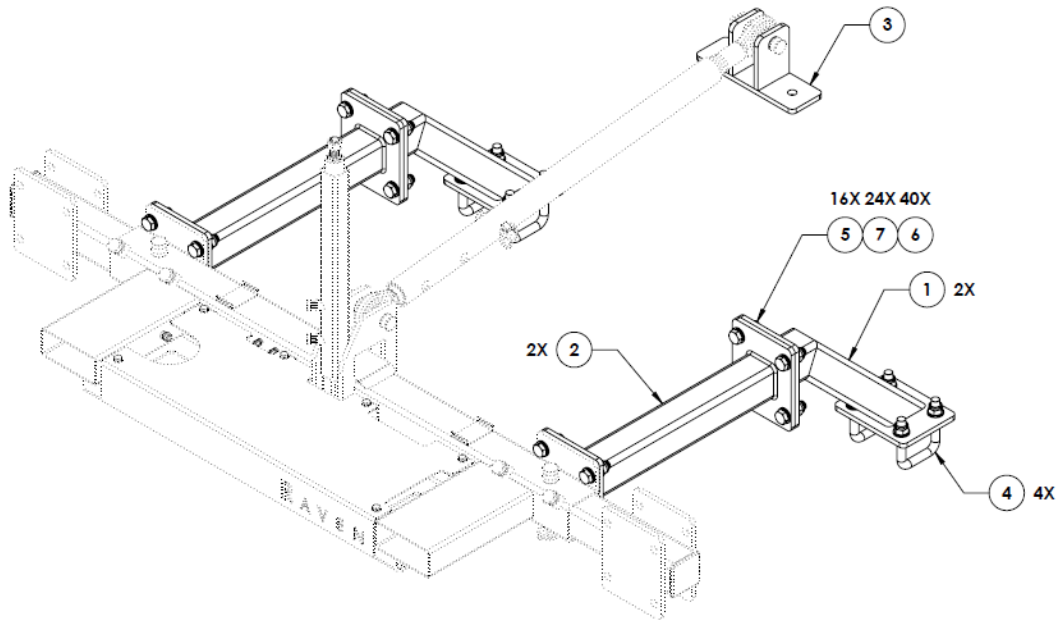


1319000016 – U-BOLT, SQUARE, M16 80X80



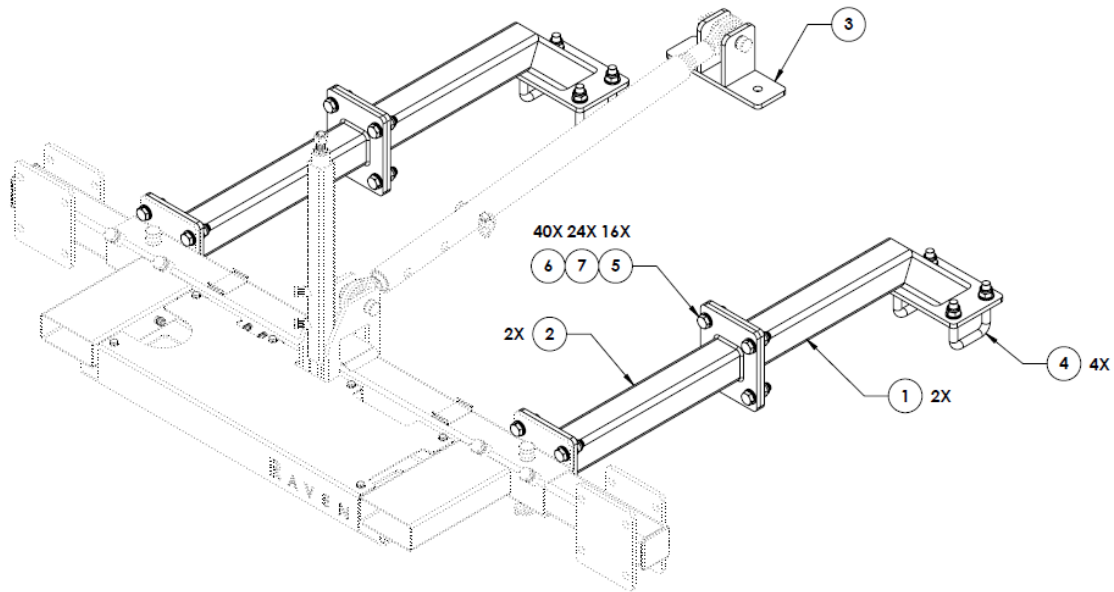
6 MACHINE SPECIFIC ADAPTER FRAMES KITS

117-8000-388 - KIT, DISC FRAME ADAPTER, STRUIK RF W/ STONEPROTECTION



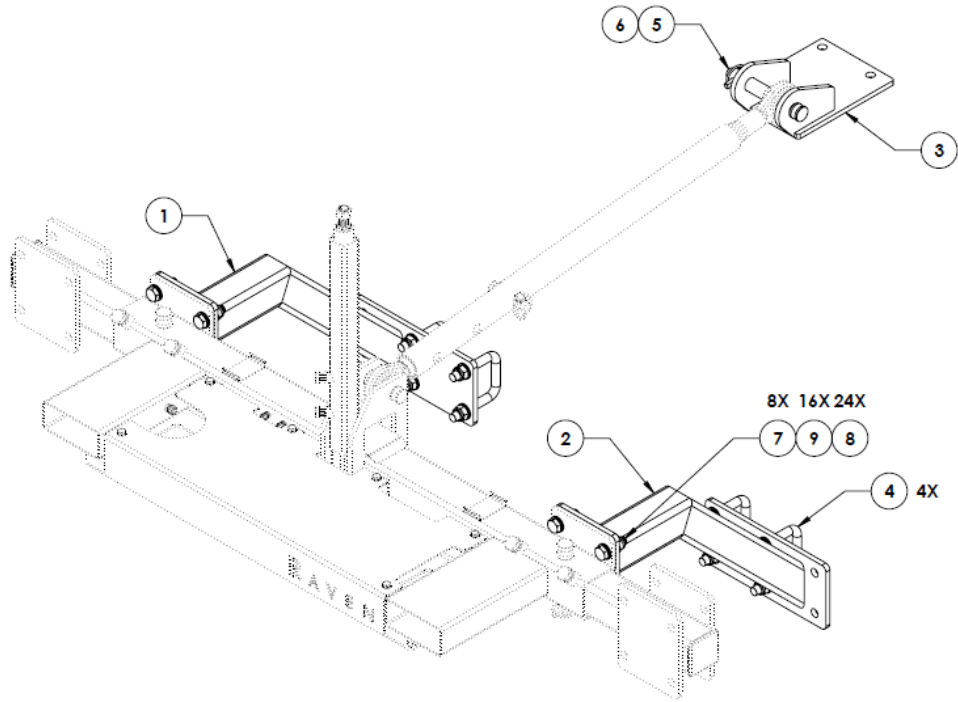
ITEM	QTY	PART NUMBER	DESCRIPTION	SPECIAL NOTE
1	2	11168000008	DISC FRAME ADAPTER STRUIK RF, W/ STONEPROTECTION	
2	2	11168000013	DISC FRAME ADAPTER STRAIGHT500	
3	1	11168000004	DISC FRAME TOPLINK ADAPTER 170	
4	4	13119000014	U-BOLT, SQUARE, M16 70X70	
5	16	13114055357K	HEX BOLT, DIN933 8.8 - M16X50	
6	40	13136000025K	WASHER, ZN, DIN125A M16	
7	24	13126001077K	HEX LOCK NUT DIN985 - 8 - M16	

117-8000-389 - KIT, DISC FRAME ADAPTER, STRUIK RF W/O STONEPROTECTION



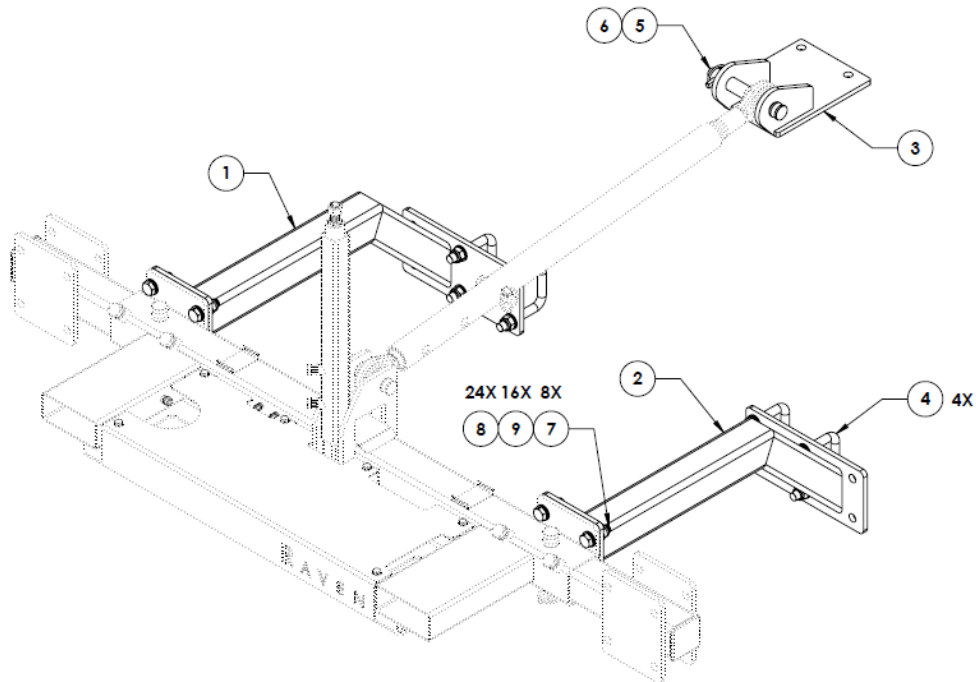
ITEM	QTY	PART NUMBER	DESCRIPTION	SPECIAL NOTE
1	2	1116800009	DISC FRAME ADAPTER STRUIK RF, W/O STONEPROTECTION	
2	2	1116800013	DISC FRAME ADAPTER STRAIGHT500	
3	1	1116800004	DISC FRAME TOPLINK ADAPTER 170	
4	4	1311900014	U-BOLT, SQUARE, M16 70X70	
5	16	13114055357K	HEX BOLT, DIN933 8.8 - M16X50	
6	40	13136000025K	WASHER, ZN, DIN125A M16	
7	24	13126001077K	HEX LOCK NUT DIN985 - 8 - M16	

117-8000-390 - KIT, DISC FRAME ADAPTER, STRUIK ZF W/ STONEPROTECTION



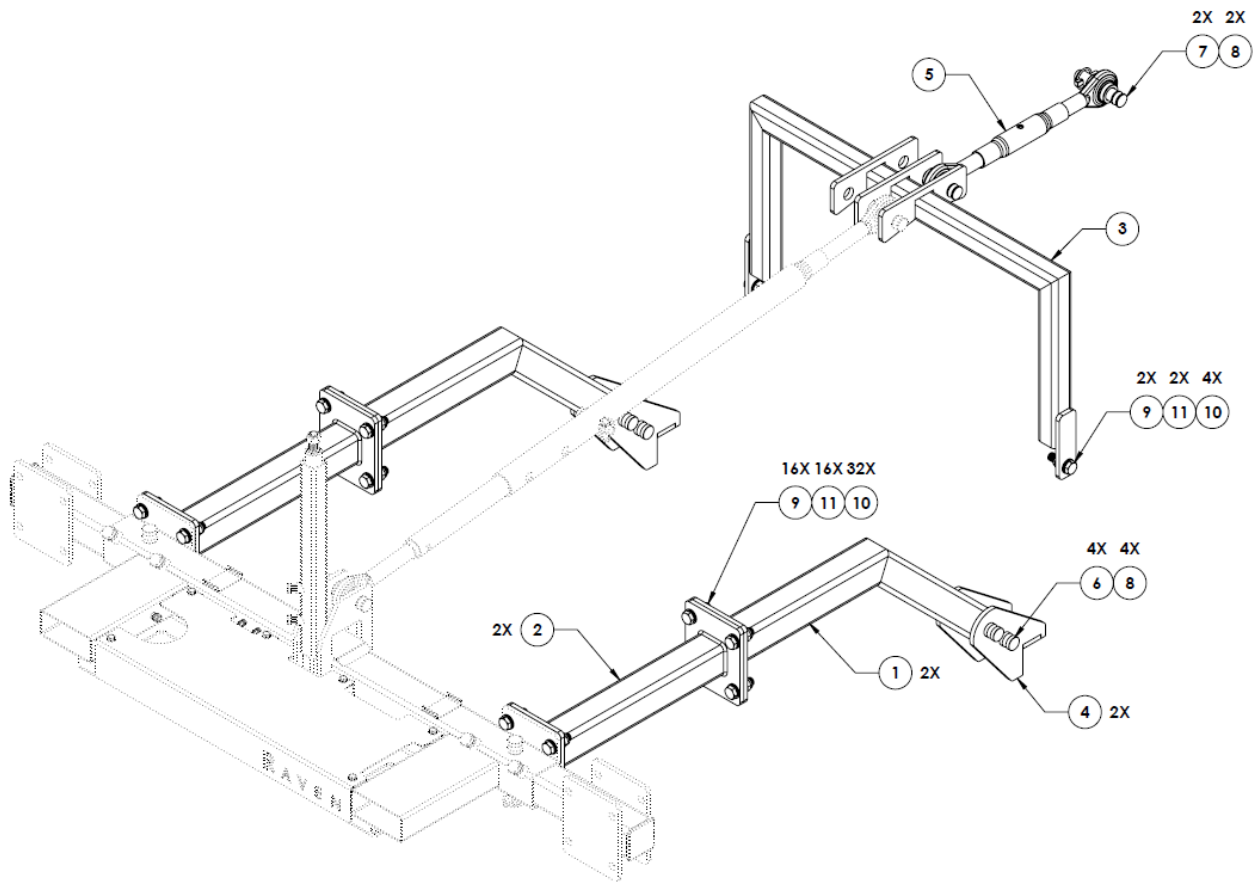
ITEM	QTY	PART NUMBER	DESCRIPTION	SPECIAL NOTE
1	1	11168000010	DISC FRAME ADAPTER STRUIK ZF LEFT, W/ STONEPROTECTION	
2	1	11168000011	DISC FRAME ADAPTER STRUIK ZF RIGHT, W/ STONEPROTECTION	
3	1	11168000006	DISC FRAME TOPLINK ADAPTER, STRUIK ZF	
4	4	13119000014	U-BOLT, SQUARE, M16 70X70	
5	1	13218000006	LINKAGE PIN, 25X142X12	
6	1	13218000011	LINCHPIN, ROUND, 11X36	
7	8	13114055357K	HEX BOLT, DIN933 8.8 - M16X50	
8	24	13136000025K	WASHER, ZN, DIN125A M16	
9	16	13126001077K	HEX LOCK NUT DIN985 - 8 - M16	

117-8000-391 - KIT, DISC FRAME ADAPTER, STRUIK ZF W/O STONEPROTECTION



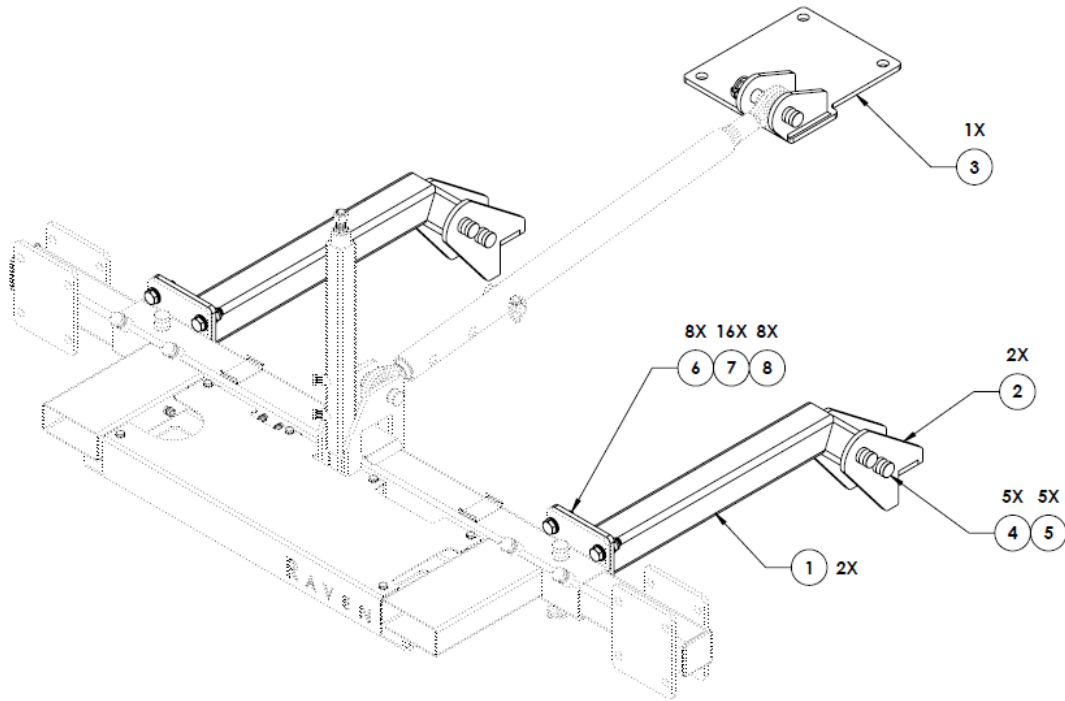
ITEM	QTY	PART NUMBER	DESCRIPTION	SPECIAL NOTE
1	1	11168000020	DISC FRAME ADAPTER STRUIK ZF LEFT, W/O STONEPROTECTION	
2	1	11168000021	DISC FRAME ADAPTER STRUIK ZF RIGHT, W/O STONEPROTECTION	
3	1	11168000006	DISC FRAME TOPLINK ADAPTER, STRUIK ZF	
4	4	13119000014	U-BOLT, SQUARE, M16 70X70	
5	1	13218000006	LINKAGE PIN, 25X142X12	
6	1	13218000011	LINCHPIN, ROUND, 11X36	
7	8	13114055357K	HEX BOLT, DIN933 8.8 - M16X50	
8	24	13136000025K	WASHER, ZN, DIN125A M16	
9	16	13126001077K	HEX LOCK NUT DIN985 - 8 - M16	

117-8000-315 - KIT, DISC FRAME ADAPTER, BASELIER FK310



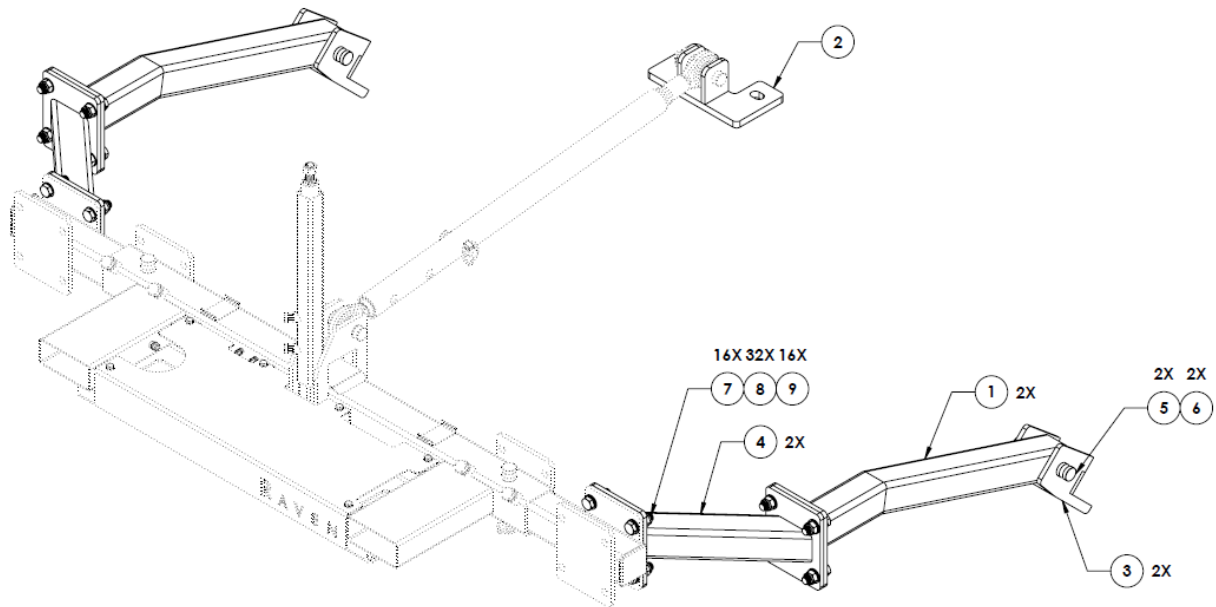
ITEM	QTY	PART NUMBER	DESCRIPTION	SPECIAL NOTE
1	2	1116800012	DISC FRAME ADAPTER, BASELIER FK310	
2	2	1116800013	DISC FRAME ADAPTER STRAIGHT500	
3	1	1116800050	DISC FRAME TOPLINK ADAPTER, BASELIER FK310	
4	2	1116800051	DISC FRAME MACHINE ADAPTER, WELDABLE, BASELIER FK310	
5	1	13218000056	TOPLINK, CAT2, 330-560MM	
6	4	13218000007	LINKAGE PIN, 25X110X12	
7	2	13218000008	LINKAGE PIN, 25X83X12	
8	6	13218000011	LINCHPIN, ROUND, 11X36	
9	18	13114055357K	HEX BOLT, DIN933 8.8 - M16X50	
10	36	13136000025K	WASHER, ZN, DIN125A M16	
11	18	13126001077K	HEX LOCK NUT DIN985 - 8 - M16	

117-8000-429 - KIT, DISC FRAME ADAPTER, BASELIER 6FKVB540



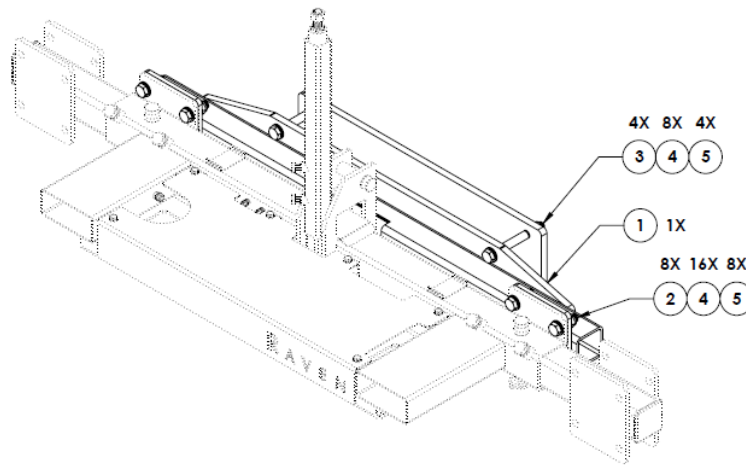
ITEM	QTY	PART NUMBER	DESCRIPTION	SPECIAL NOTE
1	2	11168000015	DISC FRAME ADAPTER, BASELIER 6FKVB540	
2	2	11168000051	DISC FRAME MACHINE ADAPTER, WELDABLE, BASELIER FK310	
3	1	11168000052	DISC FRAME TOPLINK ADAPTER, BASELIER 6FKVB540	
4	5	13218000007	LINKAGE PIN, 25X110X12	
5	5	13218000011	LINCHPIN, ROUND, 11X36	
6	8	13114055357K	HEX BOLT, DIN933 8.8 - M16X50	
7	16	13136000025K	WASHER, ZN, DIN125A M16	
8	8	13126001077K	HEX LOCK NUT DIN985 - 8 - M16	

117-8000-378 - KIT, DISC FRAME ADAPTER, GRIMME GF75-4



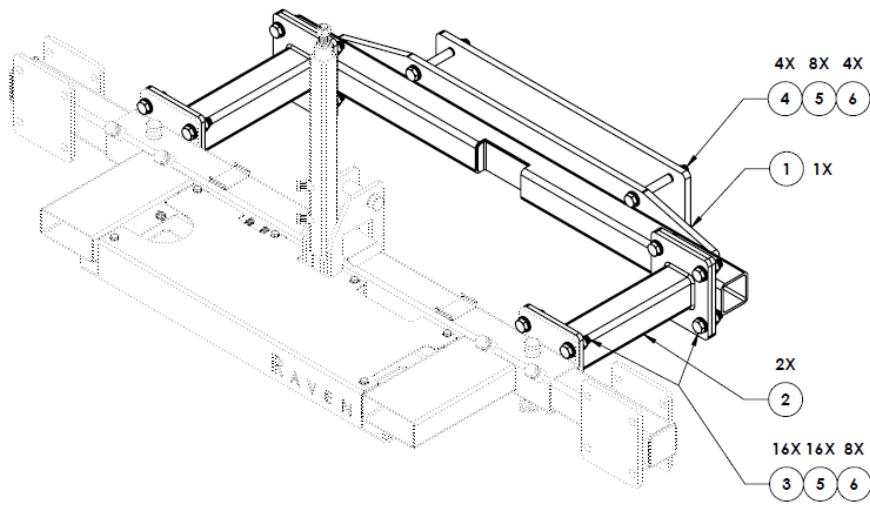
ITEM	QTY	PART NUMBER	DESCRIPTION	SPECIAL NOTE
1	2	11168000029	DISC FRAME ADAPTER, GRIMME GF75-4	
2	1	11168000047	DISC FRAME TOPLINK ADAPTER, GRIMME GF75-4	
3	2	11168000048	DISC FRAME MACHINE ADAPTER, WELDABLE, GRIMME GF75-4	
4	2	11168000049	DISC FRAME ADAPTER, DIAGONAL 250X250	
5	2	13218000007	LINKAGE PIN, 25X110X12	
6	2	13218000011	LINCHPIN, ROUND, 11X36	
7	16	13114055357	HEX BOLT, DIN933 8.8 - M16X50	
8	32	13136000025	WASHER, ZN, DIN125A M16	
9	16	13126001077K	HEX LOCK NUT DIN985 - 8 - M16	

117-8000-408 - KIT, DISC FRAME ADAPTER, BASELIER HDF6-8FK, W/ STONEPROTECTION



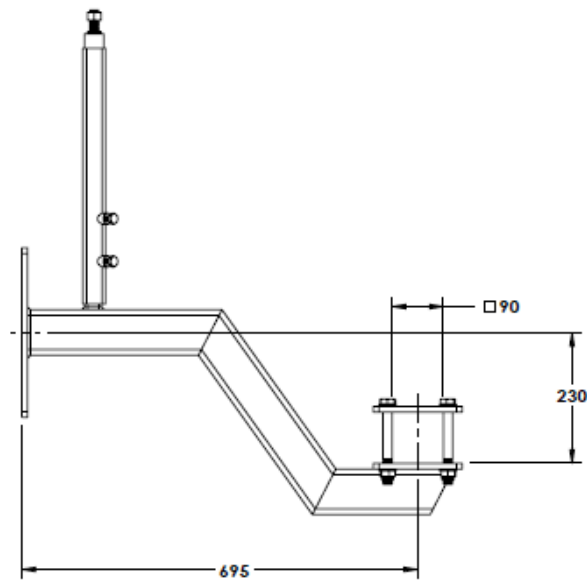
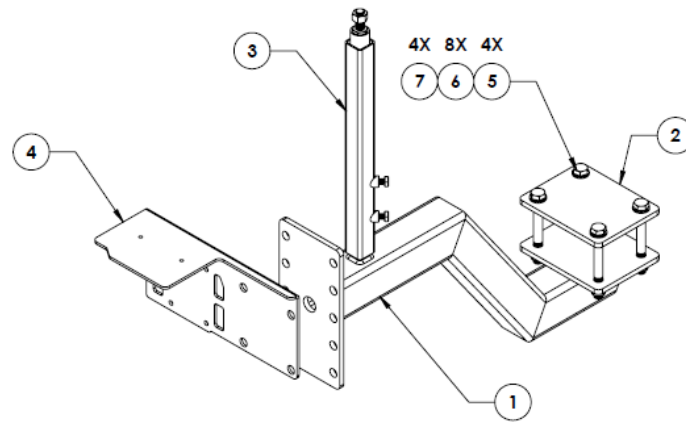
ITEM	QTY	PART NUMBER	DESCRIPTION	SPECIAL NOTE
1	1	11168000046	DISC FRAME ADAPTER, BASELIER HFD6-8FK	
2	8	13114055357K	HEX BOLT, DIN933 8.8 - M16X50	
3	4	13114050374K	HEX BOLT, DIN931 8.8 - M16X140	
4	24	13136001042K	WASHER, ZN, DIN125A M16	
5	12	13126001077K	HEX LOCK NUT DIN985 - 8 - M16	

117-8000-409 - KIT, DISC FRAME ADAPTER, BASELIER HDF6-8FK, W/O STONEPROTECTION



ITEM	QTY	PART NUMBER	DESCRIPTION	SPECIAL NOTE
1	1	11168000046	DISC FRAME ADAPTER, BASELIER HFD6-8FK	
2	2	11168000026	DISC FRAME ADAPTER, STRAIGHT, 350MM	
3	16	13114055357K	HEX BOLT, DIN933 8.8 - M16X50	
4	4	13114050374K	HEX BOLT, DIN931 8.8 - M16X140	
5	40	13136001042K	WASHER, ZN, DIN125A M16	
6	20	13126001077K	HEX LOCK NUT DIN985 - 8 - M16	

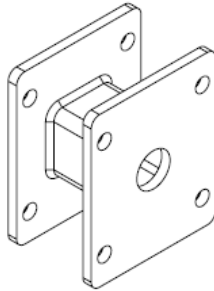
117-8000-428 - KIT, DISC FRAME, KVERNELAND MINIAIR NOVA (SMALL), SINGLE DISC



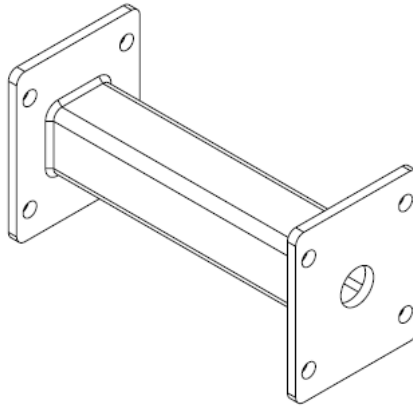
ITEM	QTY	PART NUMBER	DESCRIPTION	SPECIAL NOTE
1	1	11168000003	DISC FRAME, KVERNELAND MINIAIR NOVA, SINGLE DISC	
2	1	11078000158	DISC FRAME FIX PLATE, KVERNELAND MINIAIR NOVA, SINGLE DISC	
3	1	11078000026	DISC MANIFOLD BRACKET	
4	1	11168000007	DISC FRAME ANTENNA PIPE 0.5M	
5	4	13114050374K	HEX BOLT, DIN931 8.8 - M16X140	
6	8	13136000025K	WASHER, ZN, DIN125A M16	
7	4	13126001077K	HEX LOCK NUT DIN985 - 8 - M16	

7 ADAPTER PARTS

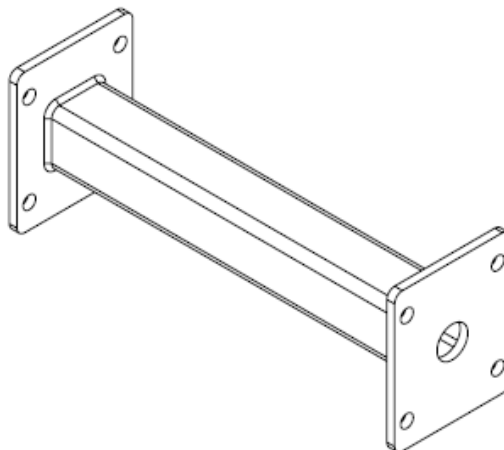
11168000027 – DISC FRAME ADAPTER, STRAIGHT, 100MM



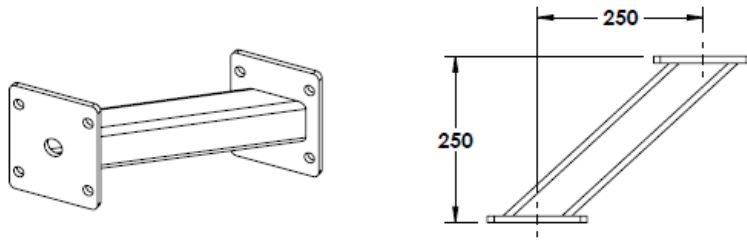
11168000026 – DISC FRAME ADAPTER, STRAIGHT, 350MM



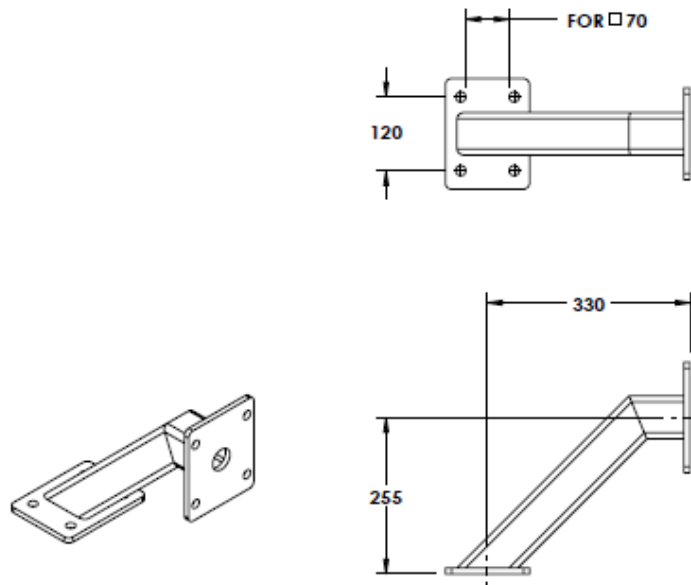
11168000013 – DISC FRAME ADAPTER, STRAIGHT, 500MM



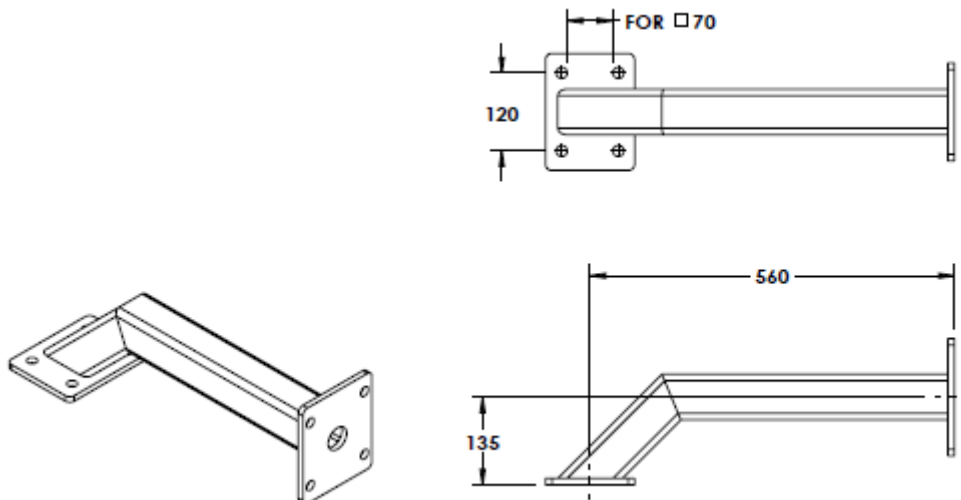
11168000049 – DISC FRAME ADAPTER, DIAGONAL 250X250



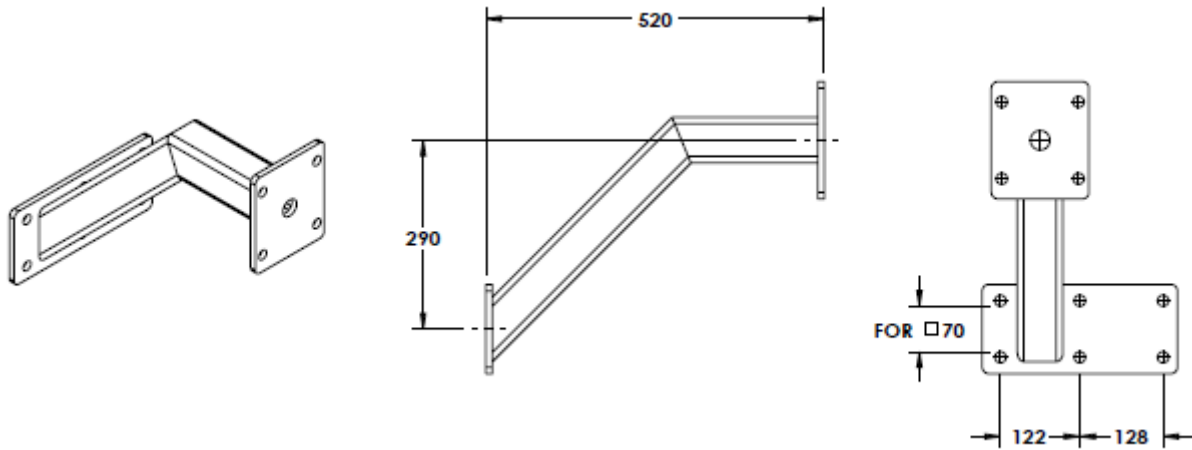
11168000008 – DISC FRAME ADAPTER STRUIK RF, W/ STONEPROTECTION



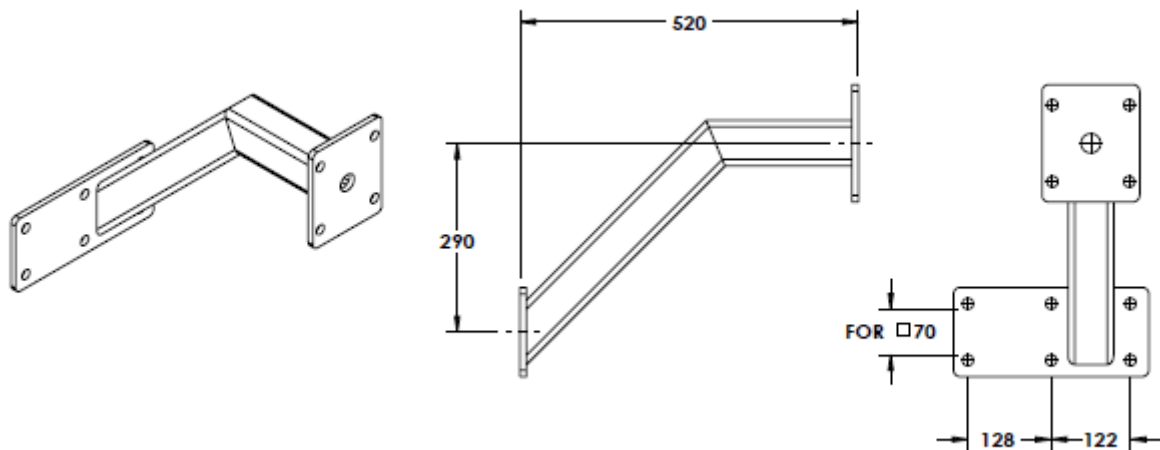
11168000009 – DISC FRAME ADAPTER STRUIK RF, W/O STONEPROTECTION



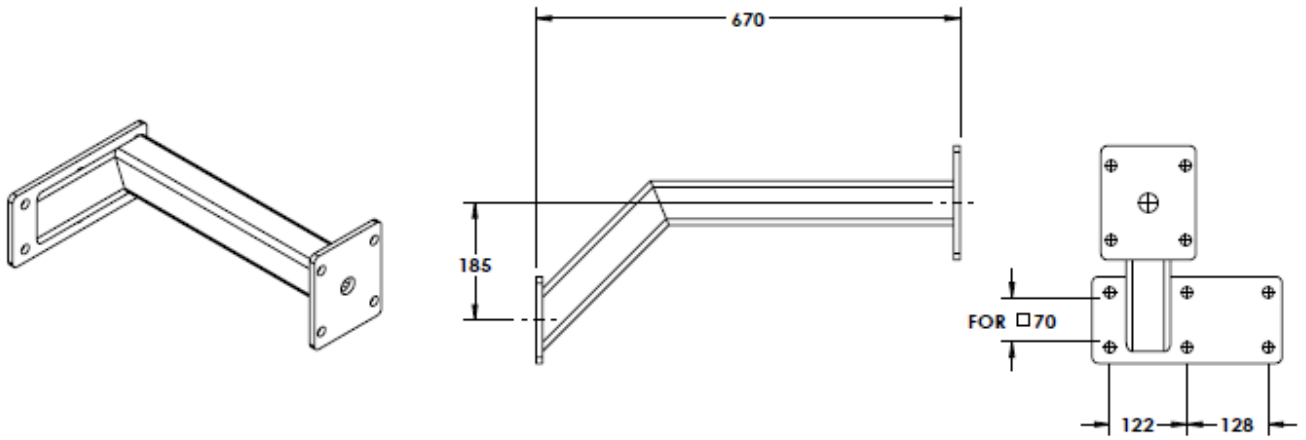
11168000010 – DISC FRAME ADAPTER STRUIK ZF LEFT, W/ STONEPROTECTION



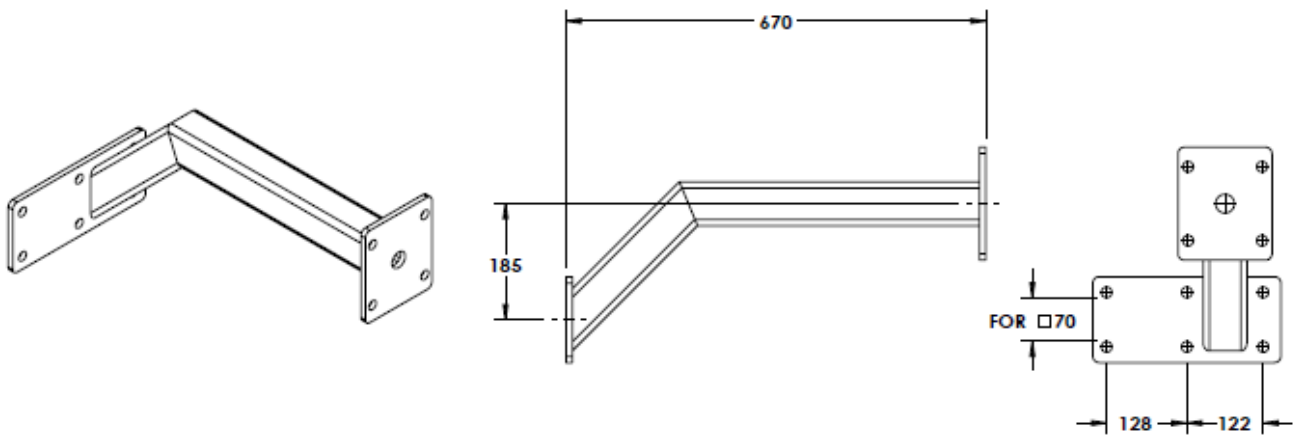
11168000011 – DISC FRAME ADAPTER STRUIK ZF RIGHT, W/ STONEPROTECTION



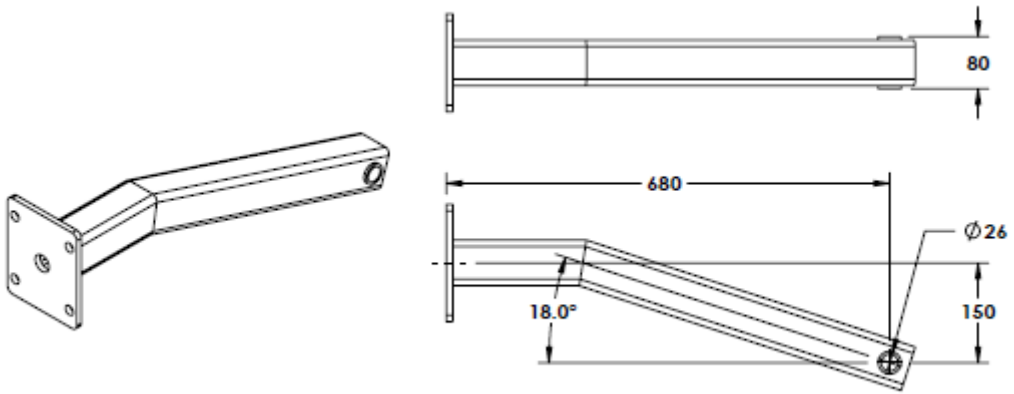
11168000020 - DISC FRAME ADAPTER STRUIK ZF LEFT, W/O STONEPROTECTION



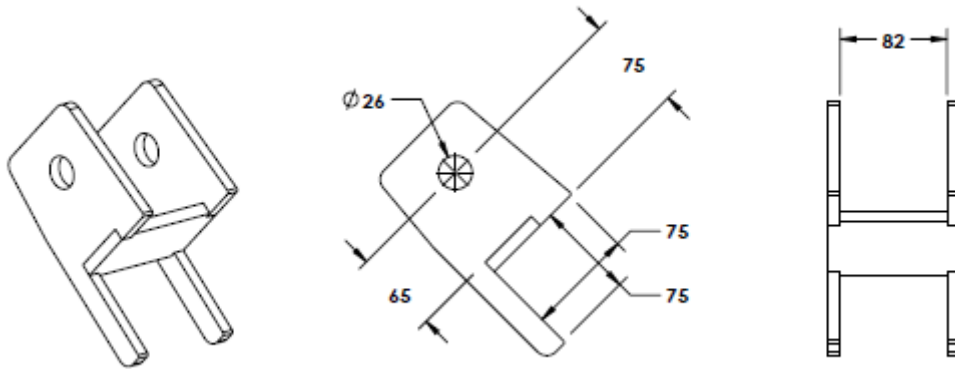
11168000021 - DISC FRAME ADAPTER STRUIK ZF RIGHT, W/O STONEPROTECTION



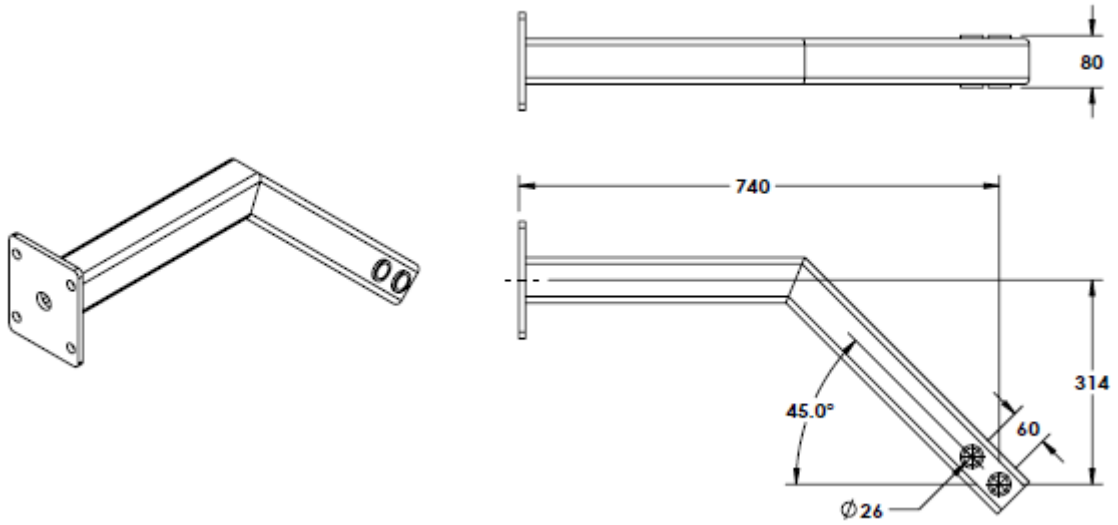
11168000029 - DISC FRAME ADAPTER, GRIMME GF75-4



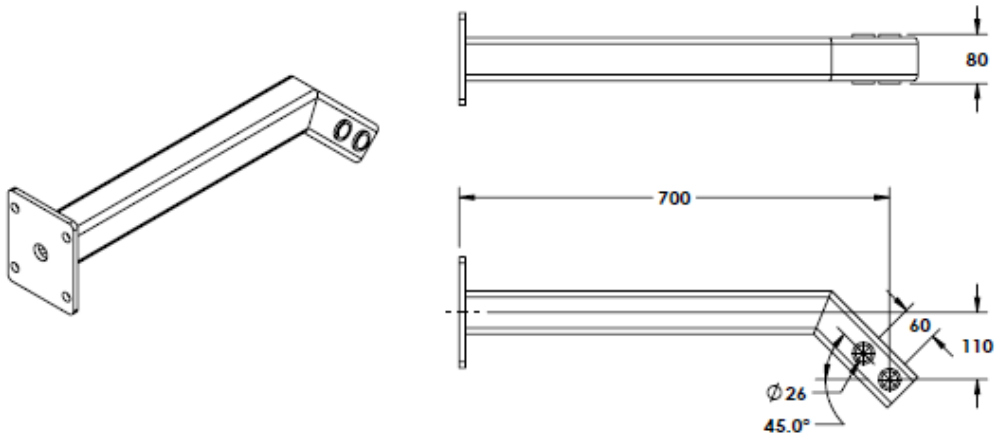
11168000048 - DISC FRAME MACHINE ADAPTER, WELDABLE, GRIMME GF75-4



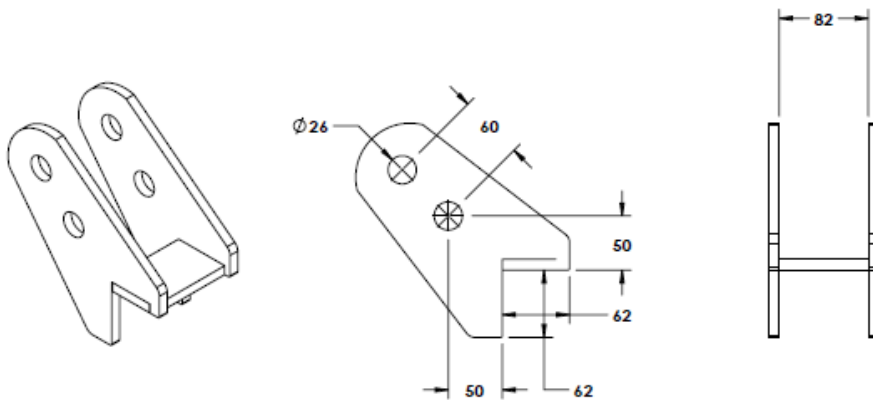
11168000012 - DISC FRAME ADAPTER, BASELIER FK310



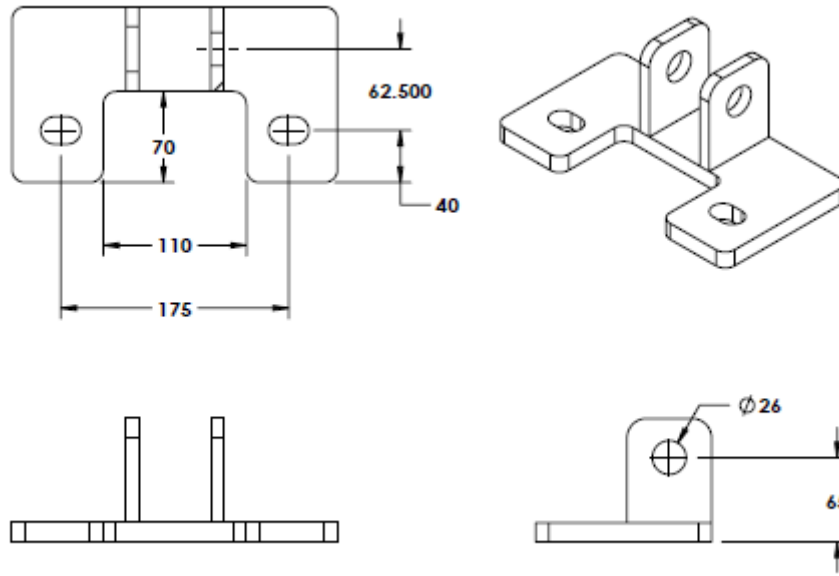
11168000015 - DISC FRAME ADAPTER, BASELIER 6FKVB540



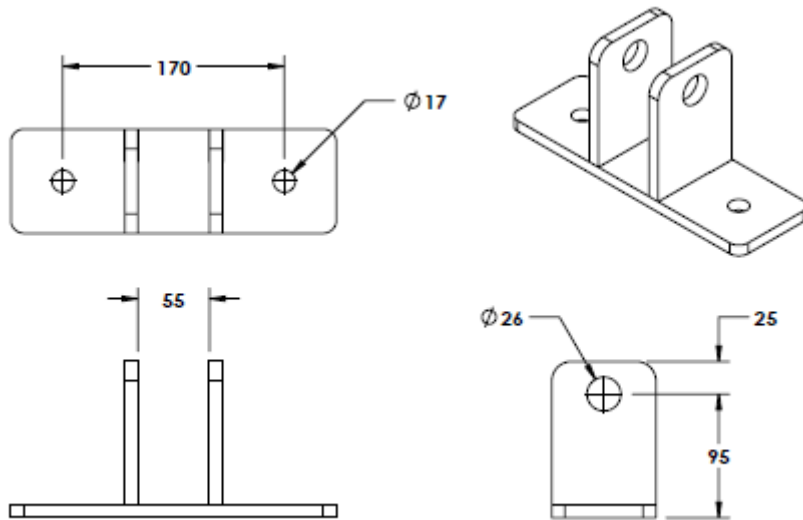
11168000051 - DISC FRAME MACHINE ADAPTER, WELDABLE, BASELIER FK310



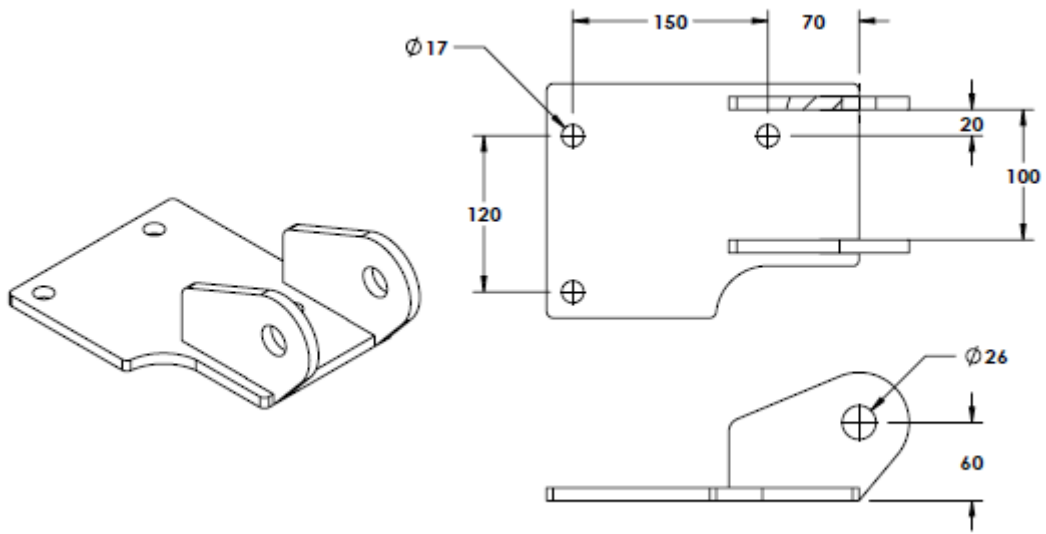
11168000047 - DISC FRAME TOPLINK ADAPTER, GRIMME GF75-4



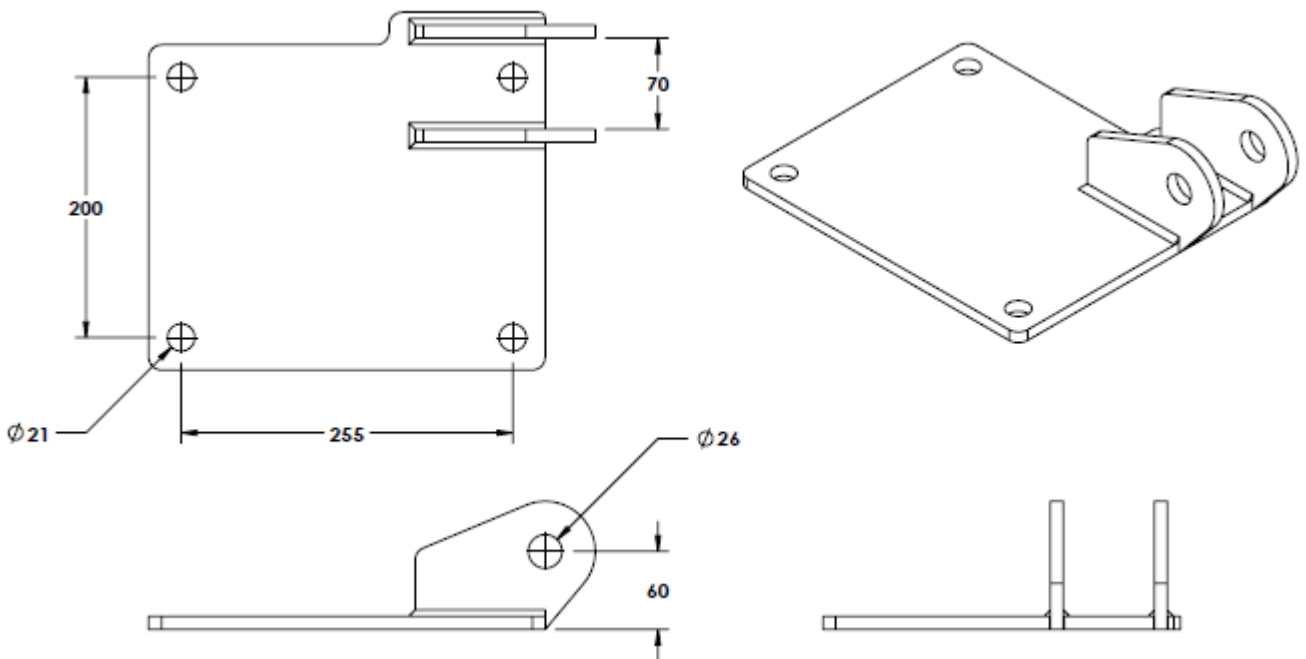
11168000004 - DISC FRAME TOPLINK ADAPTER 170



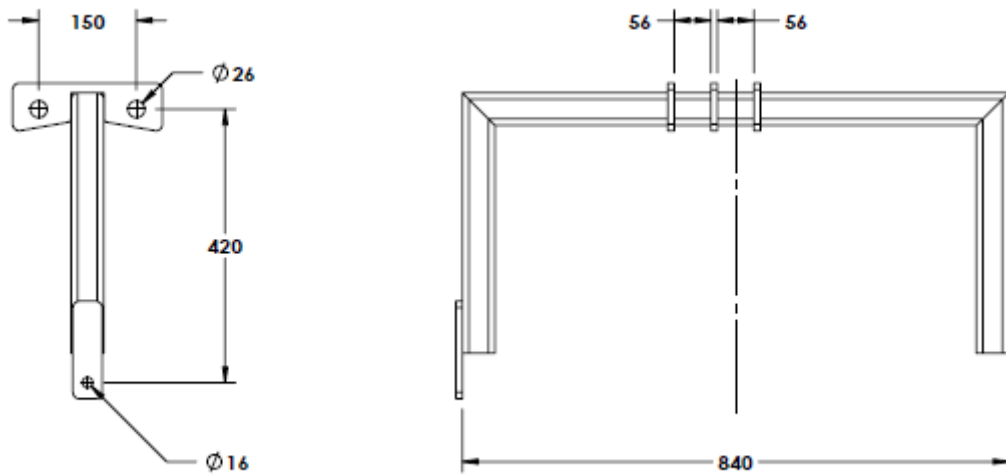
11168000006 - DISC FRAME TOPLINK ADAPTER, STRUIK ZF



11168000052 - DISC FRAME TOPLINK ADAPTER, BASELIER 6FKVB540



11168000050 - DISC FRAME TOPLINK ADAPTER, BASELIER FK310



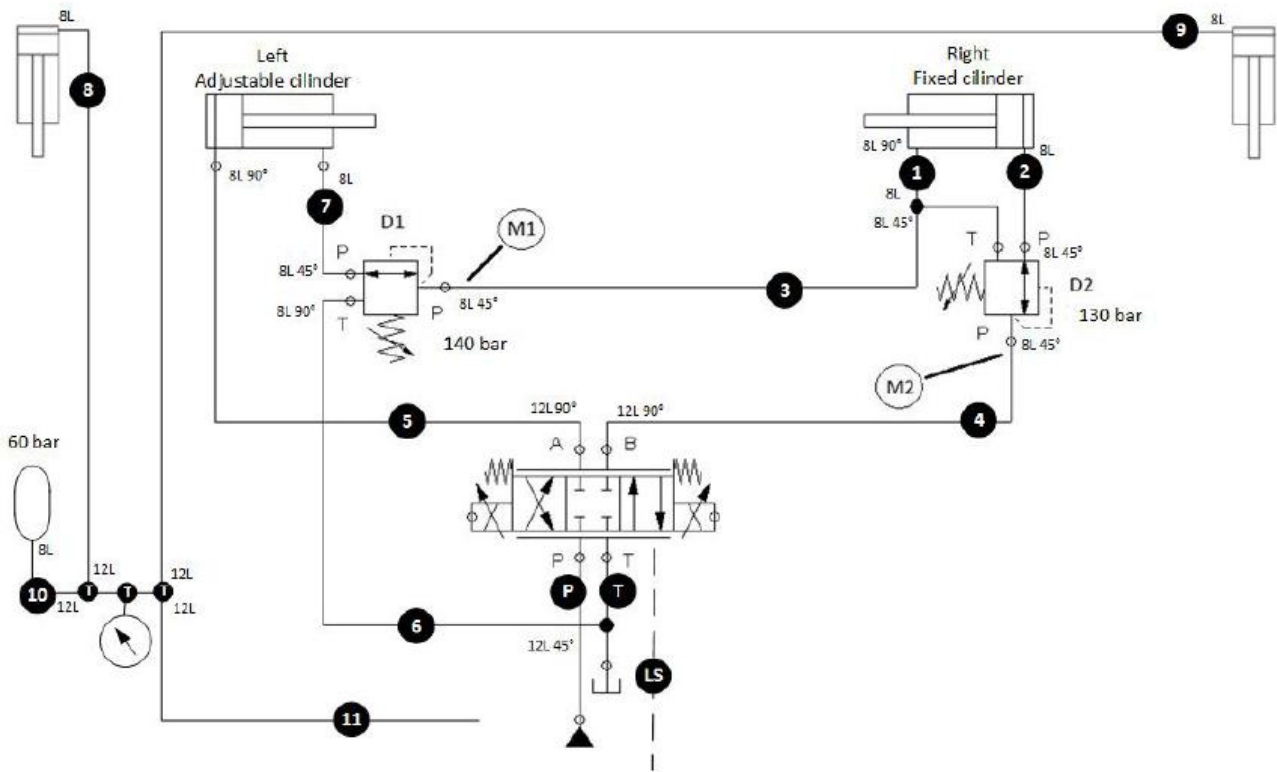
8 DISC STEERING HYDRAULIC HOSE KIT

TRACTOR TO DISCFRAME

PART NO	DESCRIPTION
11178141005	KIT, HOSE, TRACTOR TO DISCFRAME, W/ STONE PROTECTION, 3.0M
11178141006	KIT, HOSE, TRACTOR TO DISCFRAME W/ STONE PROTECTION, 4.0M
11178141007	KIT, HOSE, TRACTOR TO DISCFRAME W/ STONE PROTECTION, 6.0M
11178141008	KIT, HOSE, TRACTOR TO DISCFRAME W/ STONE PROTECTION, 8.0M

DISCFRAME HOSE KITS

PART NO	DESCRIPTION
11178141001	KIT, HOSE, DISCFRAME MY18, 1500, W/ STONE PROTECTION
11178141002	KIT, HOSE, DISCFRAME MY18, 1800, W/ STONE PROTECTION
11178141003	KIT, HOSE, DISCFRAME MY18, 2000, W/ STONE PROTECTION
11178141004	KIT, HOSE, DISCFRAME MY18, 2250, W/ STONE PROTECTION



Nieuwe Steen 5
1625 HV, Hoorn
The Netherlands

Phone: +31 227 54 93 00
Web: www.ravenprecision.com
Email: service-eu@ravenind.com

R A V E N