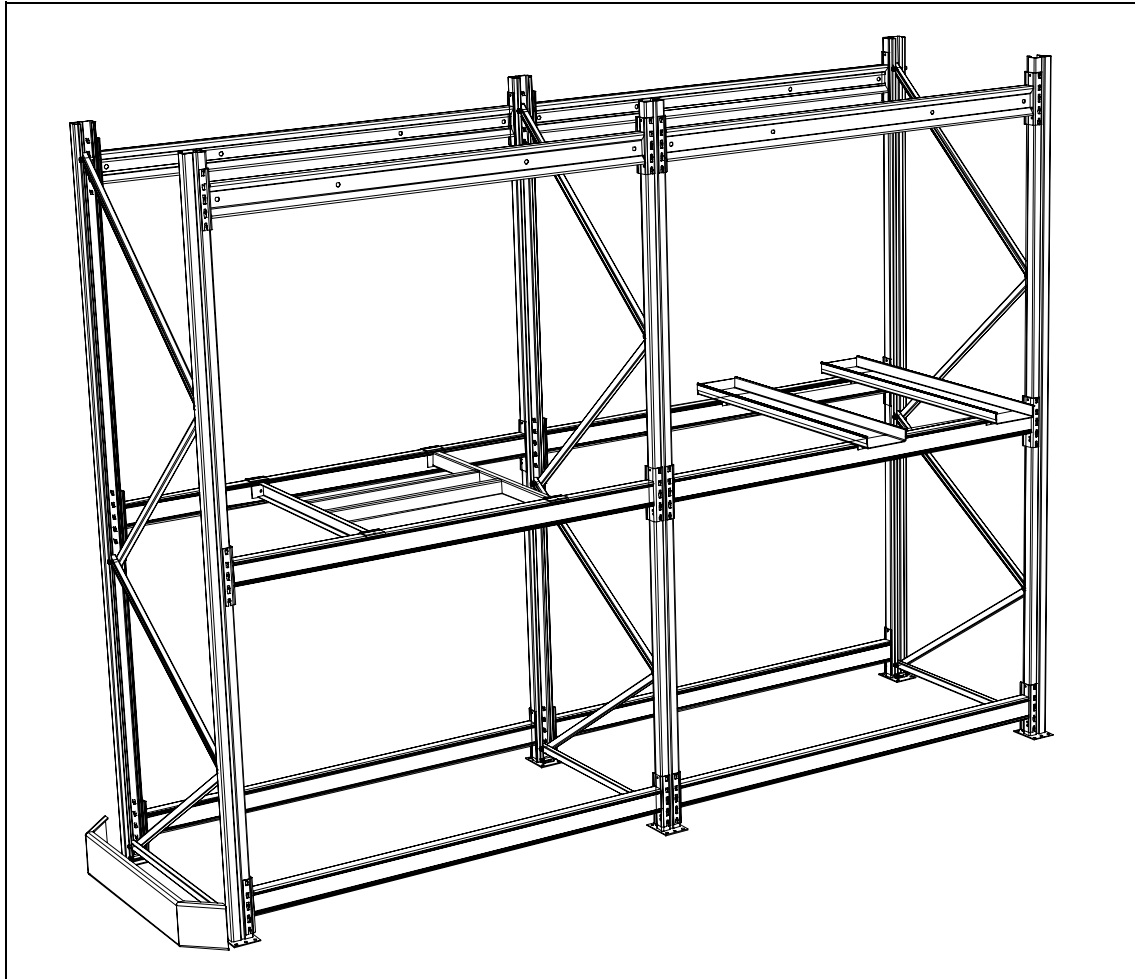


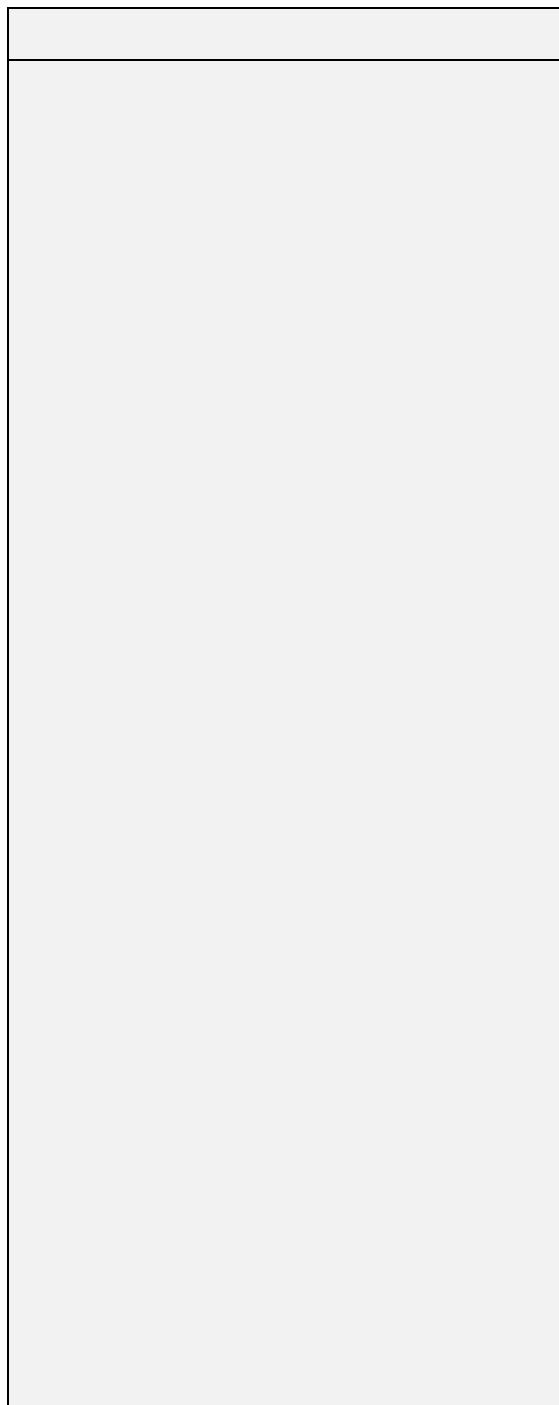
**TECHNICAL MANUAL FOR
P90 PALLET RACKING**



UPRIGHT TYPE L-M-H (Graphite RAL 7016 or Galvanized)	
WIDTH : 90 MM DEPTH : 70,5 MM THICKNESS L-PROFILE: 1,60 MM THICKNESS M-PROFILE: 1,90 MM THICKNESS H-PROFILE: 2,35 MM STANDARD HEIGHT: 2000 - 7000 MM MAX. HEIGHT: 12000 MM	
UPRIGHT TYPE M-H (Graphite RAL 7016) PRODUCED / DELIVERED FROM NORWAY	
570085 UPRIGHT P90 TYPE M 2000 MM 570090 UPRIGHT P90 TYPE M 2500 MM 570095 UPRIGHT P90 TYPE M 3000 MM 570100 UPRIGHT P90 TYPE M 3500 MM 570105 UPRIGHT P90 TYPE M 4000 MM 570110 UPRIGHT P90 TYPE M 4500 MM 570115 UPRIGHT P90 TYPE M 5000 MM 570120 UPRIGHT P90 TYPE M 5500 MM 570125 UPRIGHT P90 TYPE M 6000 MM 570130 UPRIGHT P90 TYPE M 6500 MM 570135 UPRIGHT P90 TYPE M 7000 MM 570140 UPRIGHT P90 TYPE M 7500 MM 570145 UPRIGHT P90 TYPE M 8000 MM 570150 UPRIGHT P90 TYPE M 8500 MM 570155 UPRIGHT P90 TYPE M 9000 MM 570160 UPRIGHT P90 TYPE M 9500 MM 570165 UPRIGHT P90 TYPE M 10000 MM 570170 UPRIGHT P90 TYPE M 10500 MM 570175 UPRIGHT P90 TYPE M 11000 MM 570180 UPRIGHT P90 TYPE M 11500 MM 570185 UPRIGHT P90 TYPE M 12000 MM	

570205	UPRIGHT P90 TYPE H	4000 MM	
570210	UPRIGHT P90 TYPE H	4500 MM	
570215	UPRIGHT P90 TYPE H	5000 MM	
570220	UPRIGHT P90 TYPE H	5500 MM	
570225	UPRIGHT P90 TYPE H	6000 MM	
570230	UPRIGHT P90 TYPE H	6500 MM	
570235	UPRIGHT P90 TYPE H	7000 MM	
570240	UPRIGHT P90 TYPE H	7500 MM	
570245	UPRIGHT P90 TYPE H	8000 MM	
570250	UPRIGHT P90 TYPE H	8500 MM	
570255	UPRIGHT P90 TYPE H	9000 MM	
570260	UPRIGHT P90 TYPE H	9500 MM	
570265	UPRIGHT P90 TYPE H	10000 MM	
570270	UPRIGHT P90 TYPE H	10500 MM	
570275	UPRIGHT P90 TYPE H	11000 MM	
570280	UPRIGHT P90 TYPE H	11500 MM	
570285	UPRIGHT P90 TYPE H	12000 MM	

UPRIGHT TYPE L-M-H (Galvanized)		
PRODUCED / DELIVERED FROM FINLAND		
590701	UPRIGHT P90 TYPE L	1500 MM GALV.
590702	UPRIGHT P90 TYPE L	2000 MM GALV.
590704	UPRIGHT P90 TYPE L	2500 MM GALV.
590706	UPRIGHT P90 TYPE L	3000 MM GALV.
590707	UPRIGHT P90 TYPE L	3500 MM GALV.
590708	UPRIGHT P90 TYPE L	4000 MM GALV.
590710	UPRIGHT P90 TYPE L	4500 MM GALV.
590712	UPRIGHT P90 TYPE L	5000 MM GALV.
590714	UPRIGHT P90 TYPE L	5500 MM GALV.
590715	UPRIGHT P90 TYPE L	6000 MM GALV.
590717	UPRIGHT P90 TYPE L	6500 MM GALV.
590719	UPRIGHT P90 TYPE L	7000 MM GALV.
590721	UPRIGHT P90 TYPE L	7500 MM GALV.
590722	UPRIGHT P90 TYPE L	8000 MM GALV.
590726	UPRIGHT P90 TYPE M	2000 MM GALV.
590728	UPRIGHT P90 TYPE M	2500 MM GALV.
590730	UPRIGHT P90 TYPE M	3000 MM GALV.
590731	UPRIGHT P90 TYPE M	3500 MM GALV.
590732	UPRIGHT P90 TYPE M	4000 MM GALV.
590734	UPRIGHT P90 TYPE M	4500 MM GALV.
590736	UPRIGHT P90 TYPE M	5000 MM GALV.
590738	UPRIGHT P90 TYPE M	5500 MM GALV.
590739	UPRIGHT P90 TYPE M	6000 MM GALV.
590741	UPRIGHT P90 TYPE M	6500 MM GALV.
590743	UPRIGHT P90 TYPE M	7000 MM GALV.
590745	UPRIGHT P90 TYPE M	7500 MM GALV.
590746	UPRIGHT P90 TYPE M	8000 MM GALV.
590748	UPRIGHT P90 TYPE M	8500 MM GALV.
590750	UPRIGHT P90 TYPE M	9000 MM GALV.
590789	UPRIGHT P90 TYPE M	9500 MM GALV.
590791	UPRIGHT P90 TYPE M	10000 MM GALV.
590792	UPRIGHT P90 TYPE M	10500 MM GALV.
590794	UPRIGHT P90 TYPE M	11000 MM GALV.
590796	UPRIGHT P90 TYPE M	11500 MM GALV.
590798	UPRIGHT P90 TYPE M	12000 MM GALV.
590758	UPRIGHT P90 TYPE H	4000 MM GALV.
590760	UPRIGHT P90 TYPE H	4500 MM GALV.
590762	UPRIGHT P90 TYPE H	5000 MM GALV.
590764	UPRIGHT P90 TYPE H	5500 MM GALV.
590765	UPRIGHT P90 TYPE H	6000 MM GALV.
590767	UPRIGHT P90 TYPE H	6500 MM GALV.
590769	UPRIGHT P90 TYPE H	7000 MM GALV.
590771	UPRIGHT P90 TYPE H	7500 MM GALV.
590772	UPRIGHT P90 TYPE H	8000 MM GALV.
590774	UPRIGHT P90 TYPE H	8500 MM GALV.
590776	UPRIGHT P90 TYPE H	9000 MM GALV.
590778	UPRIGHT P90 TYPE H	9500 MM GALV.
590780	UPRIGHT P90 TYPE H	10000 MM GALV.
590781	UPRIGHT P90 TYPE H	10500 MM GALV.
590783	UPRIGHT P90 TYPE H	11000 MM GALV.
590785	UPRIGHT P90 TYPE H	11500 MM GALV.
590787	UPRIGHT P90 TYPE H	12000 MM GALV.



COMPLETE FRAMES (Graphite RAL 7016) PRODUCED / DELIVERED FROM NORWAY
Levelling plates and anchor bolts <u>not</u> included

FRAMES TYPE M							
FRAME HEIGHT	FRAME DEPTH						
	800MM	900MM	950MM	1050MM	1100MM	1300MM	1550MM
2000 MM	000020	000031	000042	000053	000003	000455	000480
2500 MM	000021	000032	000043	000054	000004	000456	000481
3000 MM	000022	000033	000044	000055	000005	000457	000482
3500 MM	000023	000034	000045	000056	000006	000458	000483
4000 MM	000024	000035	000046	000057	000007	000459	000484
4500 MM	000025	000036	000047	000058	000008	000460	000485
5000 MM	000026	000037	000048	000059	000009	000461	000486
5500 MM	000027	000038	000049	000060	000010	000462	000487
6000 MM	000028	000039	000050	000061	000011	000463	000488
6500 MM	000029	000040	000051	000062	000012	000464	000489
7000 MM	000030	000041	000052	000063	000013	000465	000490

FRAMES TYPE H							
FRAME HEIGHT	FRAME DEPTH						
	800MM	900MM	950MM	1050MM	1100MM	1300MM	1550MM
4500 MM	000064	000070	000082	000076	000014	000468	000493
5000 MM	000065	000071	000083	000077	000015	000469	000494
5500 MM	000066	000072	000084	000078	000016	000470	000495
6000 MM	000067	000073	000085	000079	000017	000471	000496
6500 MM	000068	000074	000086	000080	000018	000472	000497
7000 MM	000069	000075	000087	000081	000019	000473	000498

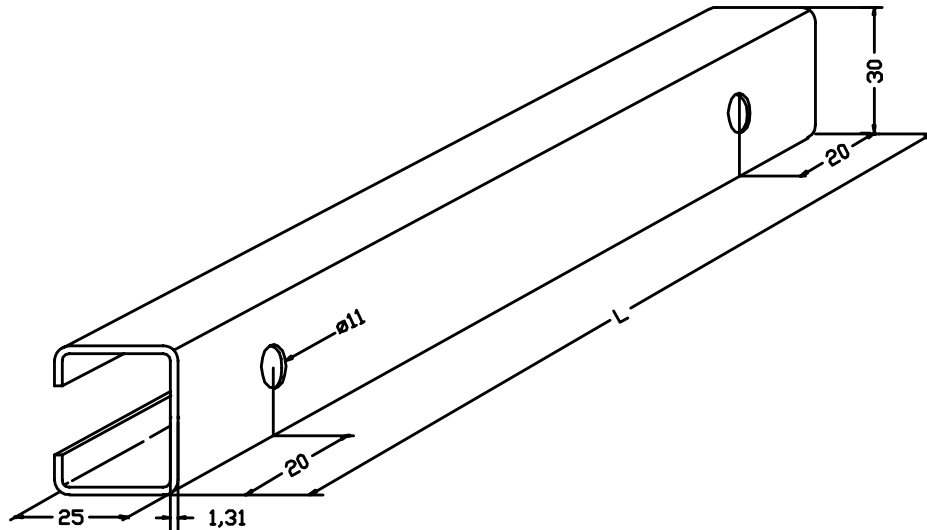
COMPLETE FRAMES (Galvanised) PRODUCED / DELIVERED FROM FINLAND
Levelling plates and anchor bolts <u>not</u> included

FRAMES TYPE L						
FRAME HEIGHT	FRAME DEPTH					
	800MM	900MM	950MM	1050MM	1300MM	1550MM
2000 MM	000611	000614	000617	000620	000623	000626
2500 MM	000612	000615	000618	000621	000624	000627
3000 MM	000613	000616	000619	000622	000625	000628
3500 MM				000740		
4000 MM				000741		
4500 MM				000742		
5000 MM				000743		
5500 MM				000744		
6000 MM				000745		
6500 MM				000746		
7000 MM				000747		

FRAMES TYPE M						
FRAME HEIGHT	FRAME DEPTH					
	800MM	900MM	950MM	1050MM	1300MM	1550MM
2000 MM	000633	000644	000655	000666	000677	000688
2500 MM	000634	000645	000656	000667	000678	000689
3000 MM	000635	000646	000657	000668	000679	000690
3500 MM	000636	000647	000658	000669	000680	000691
4000 MM	000637	000648	000659	000670	000681	000692
4500 MM	000638	000649	000660	000671	000682	000693
5000 MM	000639	000650	000661	000672	000683	000694
5500 MM	000640	000651	000662	000673	000684	000695
6000 MM	000641	000652	000663	000674	000685	000696
6500 MM	000642	000653	000664	000675	000686	000697
7000 MM	000643	000654	000665	000676	000687	000698

FRAMES TYPE H						
FRAME HEIGHT	FRAME DEPTH					
	800MM	900MM	950MM	1050MM	1300MM	1550MM
4500 MM	000704	000710	000722	000716	000728	000734
5000 MM	000705	000711	000723	000717	000729	000735
5500 MM	000706	000712	000724	000718	000730	000736
6000 MM	000707	000713	000725	000719	000731	000737
6500 MM	000708	000714	000726	000720	000732	000738
7000 MM	000709	000715	000727	000721	000733	000739

HORIZONTAL -AND DIAGONAL BRACES L-M-H UPRIGHTS (Galvanised)



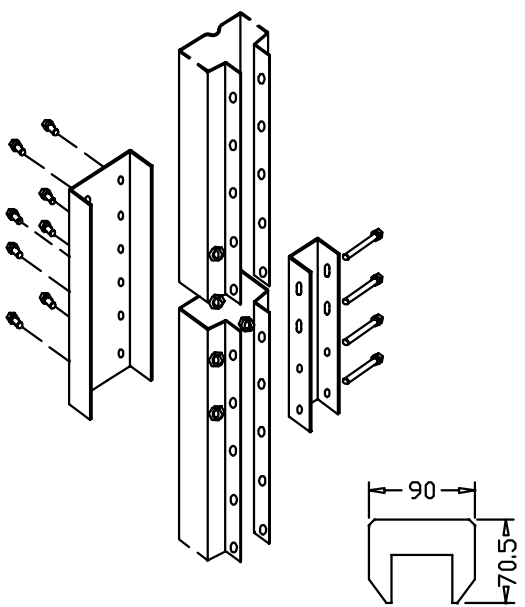
Prod. code Description Length in mm.

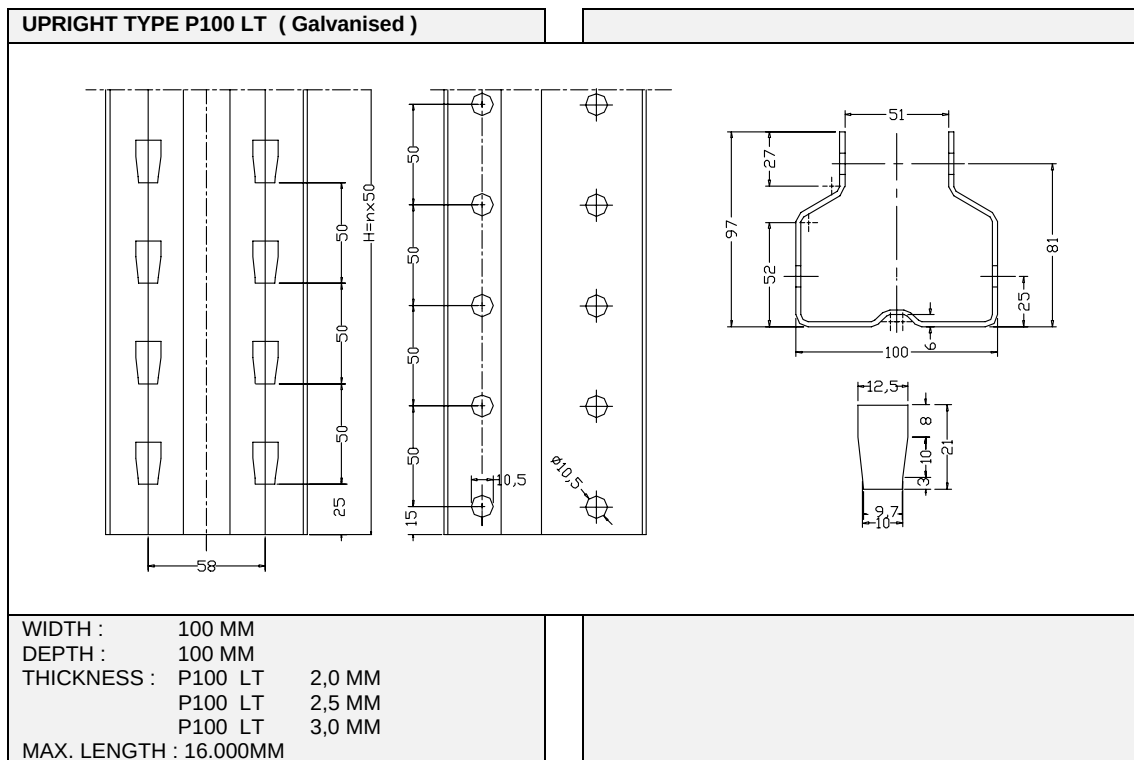
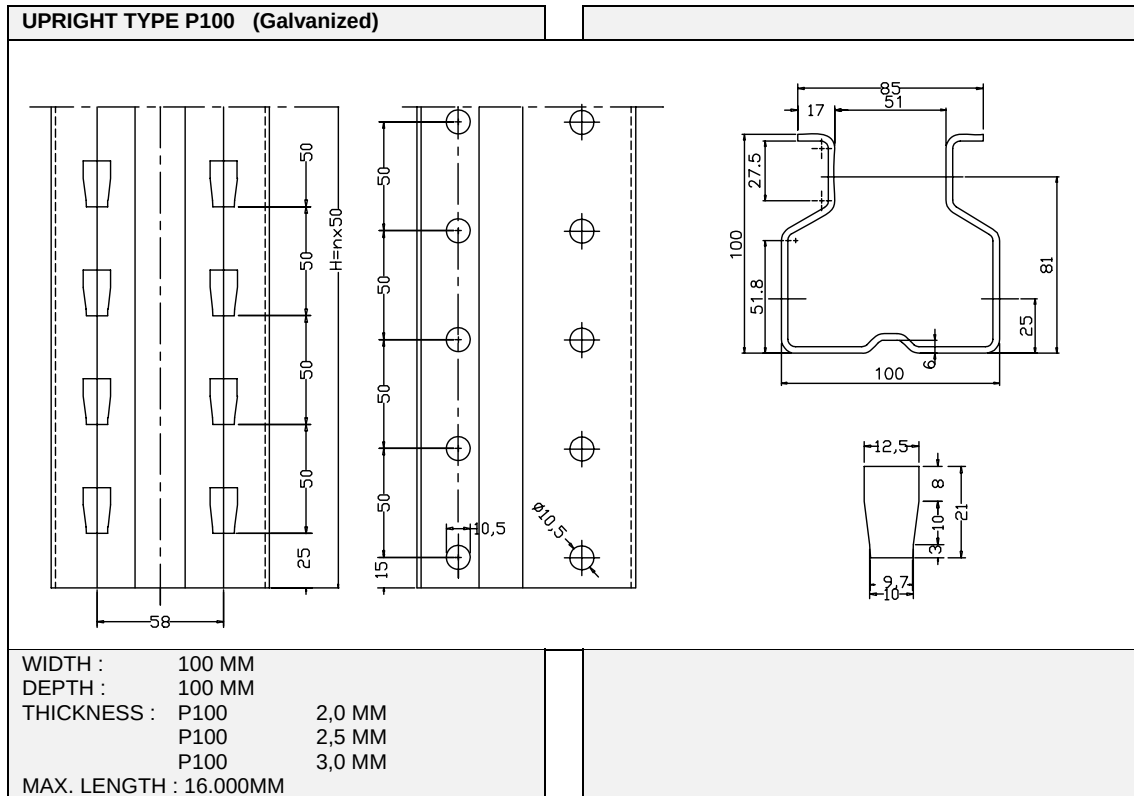
575005	HOR. BRACE S800	L= 720
575010	DIAG. BRACE S800-D1200	L= 947
575015	DIAG. BRACE S800-D1600	L=1090
575020	HOR. BRACE S900	L= 820
575025	DIAG. BRACE S900-D1200	L=1024
575030	DIAG. BRACE S900-D1600	L=1157
575035	HOR. BRACE S950	L= 870
575040	DIAG. BRACE S950-D1200	L=1064
575045	DIAG. BRACE S950-D1600	L=1193
575050	HOR. BRACE S1050	L= 970
575055	DIAG. BRACE S1050-D1200	L=1147
575060	DIAG. BRACE S1050-D1600	L=1267
575077	HOR. BRACE S1100	L=1020
575078	DIAG. BRACE S1100-D1200	L=1189
575079	DIAG. BRACE S1110-D1600	L=1305
575065	HOR. BRACE S1300	L=1220
575070	DIAG. BRACE S1300-D1200	L=1364
575075	DIAG. BRACE S1300-D1600	L=1466
575080	HOR. BRACE S1550	L=1470
575085	DIAG. BRACE S1550-D1200	L=1591
575090	DIAG. BRACE S1550-D1600	L=1679

POS.	DESCRIPTION	PROD. CODE
1	HORIZONTAL BRACE	
2	DIAGONAL BRACE	
3	DIAGONAL BRACE	
4	UPRIGHT	
5	BOLT M10x65 8.8	058182
6	NUT M10 DIN 985	058157
7	SLEEVE	057502

BRACING TABLE FOR L-M-H UPRIGHTS
H=2000-12000 MM

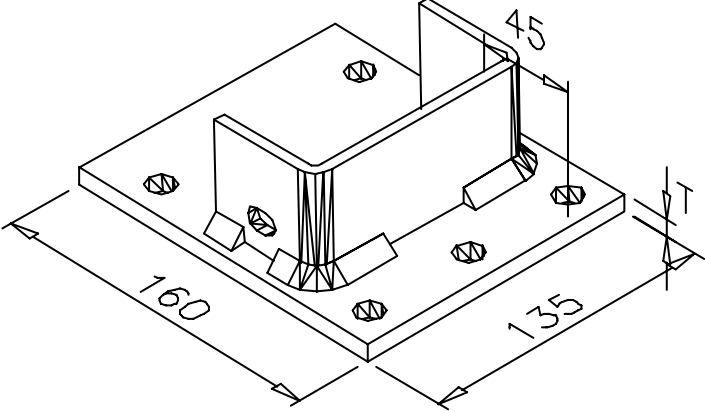
Height of upright	No of diagonal braces 1200 mm	No of diagonal braces 1600 mm	No of Horizontal braces	Foot plate	Sleeve	Bolt M10x65 Nut M10
2000	3		1	2	2	7
2500	1	2	1	2	2	7
3000	2	2	1	2	2	8
3500	4	1	1	2	2	9
4000	5	1	1	2	2	10
4500	7		1	2	2	11
5000	8		1	2	2	12
5500	6	2	1	2	2	12
6000	7	2	1	2	2	13
6500	5	4	1	2	2	13
7000	6	4	1	2	2	14
7500	8	3	1	2	2	15
8000	5	6	1	2	2	15
8500	7	5	1	2	2	16
9000	8	5	1	2	2	17
9500	6	7	1	2	2	17
10000	7	7	1	2	2	18
10500	9	6	1	2	2	19
11000	10	6	1	2	2	20
11500	8	8	1	2	2	20
12000	9	8	1	2	2	21

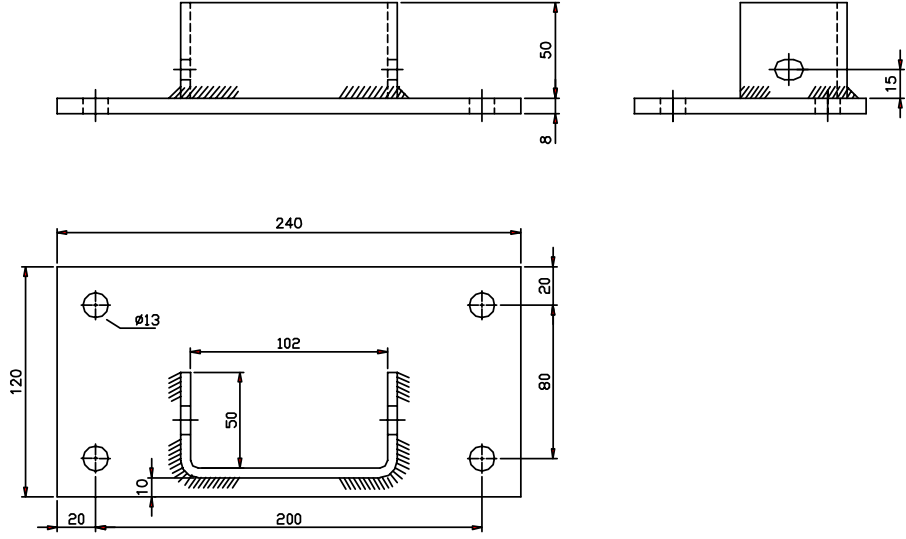
EXTENSIONS L-M-H (Graphite RAL 7016 or Galvanized)	
	
Prod. code	Description
Complete	
000092	EXTENSION MH, PAINTED
000099	EXTENSION MH, GALVANIZED
Details	
576035	EXTENSION 90 PROF. PAINTED EXT.
576033	EXTENSION 90 PROF. GALV. EXT.
576040	EXTENSION INTERNAL GALV.
576042	FILLING PLATE 90 PROFILE
Fixing details	
058182	BOLT M10x65 8.8 4 PCS
058459	BOLT M10x25 DIN 983 8 PCS
058157	NUT M10 NYLOC DIN 985 12 PCS



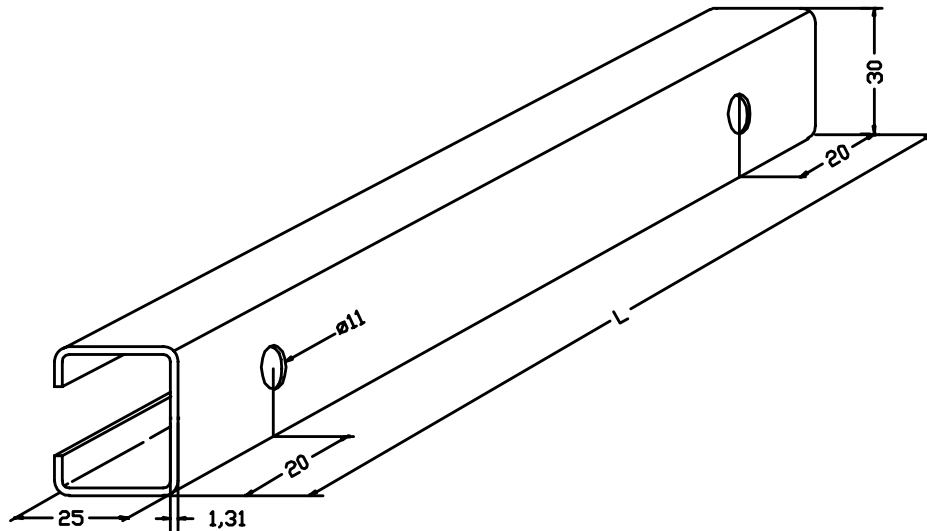
P100 UPRIGHTS (Galvanized)
Prod. Code

577300	UPRIGHT P100/20	L=4000 MM
577305	UPRIGHT P100/20	L=4500 MM
577310	UPRIGHT P100/20	L=5000 MM
577315	UPRIGHT P100/20	L=5500 MM
577320	UPRIGHT P100/20	L=6000 MM
577325	UPRIGHT P100/20	L=6500 MM
577330	UPRIGHT P100/20	L=7000 MM
577335	UPRIGHT P100/20	L=7500 MM
577340	UPRIGHT P100/20	L=8000 MM
577400	UPRIGHT P100/25	L=4000 MM
577405	UPRIGHT P100/25	L=4500 MM
577410	UPRIGHT P100/25	L=5000 MM
577415	UPRIGHT P100/25	L=5500 MM
577420	UPRIGHT P100/25	L=6000 MM
577425	UPRIGHT P100/25	L=6500 MM
577430	UPRIGHT P100/25	L=7000 MM
577435	UPRIGHT P100/25	L=7500 MM
577440	UPRIGHT P100/25	L=8000 MM
577500	UPRIGHT P100/30	L=6000 MM
577550	UPRIGHT P100/20 LT	L=6000 MM
577600	UPRIGHT P100/25 LT	L=6000 MM
577650	UPRIGHT P100/30 LT	L=6000 MM

FOOT PLATES P100 (Galvanized)		
		
Prod. code	Description	
577230	FOOT PLATE 135x160x5	
577231	FOOT PLATE 135x160x8	
577240	LEVELLING PLATE 135x160x1	
577241	LEVELLING PLATE 135x160x3	
577242	LEVELLING PLATE 135x160x5	
Fixing details (2 pcs / foot plate)		
058459	BOLT M10x25 DIN931 8.8	
058157	NUT M10 NYLOC DIN985	
Floor fixing (2 pcs / foot plate)		
057908	EXPANSION BOLT M12x100 MM	
Loading capacity :		
Foot plate 135x160x5mm :		13 tons / frame
Foot plate 135x160x8mm :		21 tons / frame

FOOT PLATES P100 for high bay systems (Galvanized)		
		
Prod. code	Description	
577200	FOOT PLATE 120x240x8	
577202	LEVELLING PLATE 120x240x1	
577203	LEVELLING PLATE 120x240x3	
577204	LEVELLING PLATE 120x240x5	
Fixing details (2 pcs / foot plate)		
058459	BOLT M10x25 DIN931 8.8	
058157	NUT M10 NYLOC DIN985	
Floor fixing (2 pcs / foot plate)		
057908	EXPANSION BOLT M12x100 MM	
Loading capacity :		
Foot plate 120x240x8mm :		21 tons / frame

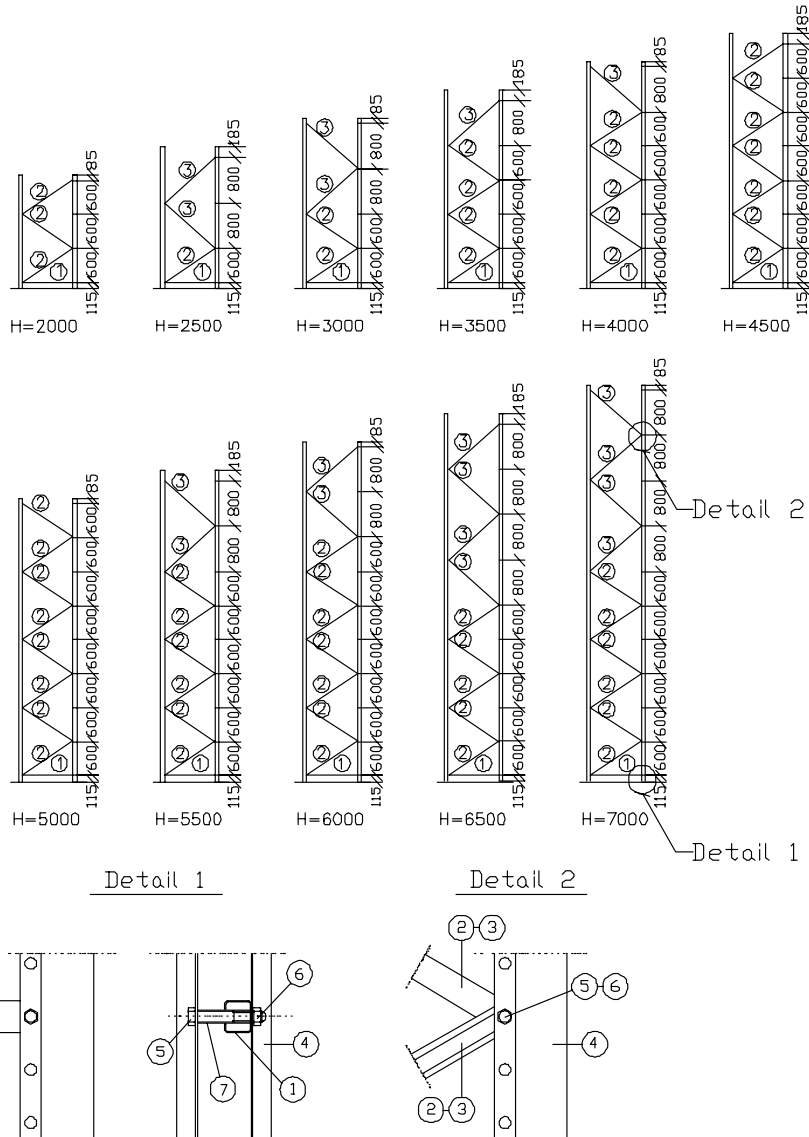
HORIZONTAL -AND DIAGONAL BRACES
(Galvanized) P100 UPRIGHTS



Prod. code	Description	Length in mm.
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577000	HOR BRACE P100 S550	L= 428
577001	DIAG BRACE P100 S550-D1200	L= 755
577002	DIAG BRACE P100 S550-D1600	L= 929
577010	HOR BRACE P100 S800	L= 678
577011	DIAG BRACE P100 S800-D1200	L= 916
577012	DIAG BRACE P100 S800-D1600	L=1063
577020	HOR BRACE P100 S900	L= 778
577021	DIAG BRACE P100 S900-D1200	L= 991
577022	DIAG BRACE P100 S900-D1600	L=1128
577030	HOR BRACE P100 S950	L= 828
577031	DIAG BRACE P100 S950-D1200	L=1030
577032	DIAG BRACE P100 S950-D1600	L=1163
577040	HOR BRACE P100 S1050	L= 928
577041	DIAG BRACE P100 S1050-D1200	L=1112
577042	DIAG BRACE P100 S1050-D2600	L=1235
577045	HOR BRACE P100 S1100	L= 978
577046	DIAG BRACE P100 S1100-D1200	L=1154
577047	DIAG BRACE P100 S1100-D2600	L=1273
577050	HOR BRACE P100 S1300	L=1178
577051	DIAG BRACE P100 S1300-D1200	L=1327
577052	DIAG BRACE P100 S1300-D1600	L=1431
577060	HOR BRACE P100 S1550	L=1428
577061	DIAG BRACE P100 S1550-D1200	L=1552
577062	DIAG BRACE P100 S1550-D1600	L=1642
577070	HOR BRACE P100 S1800	L=1678
577071	DIAG BRACE P100 S1800-D1200	L=1784
577072	DIAG BRACE P100 S1800-D1600	L=1863
577080	HOR BRACE P100 S2000	L=1878
577081	DIAG BRACE P100 S2000-D1200	L=1974
577082	DIAG BRACE P100 S2000-D1600	L=2045

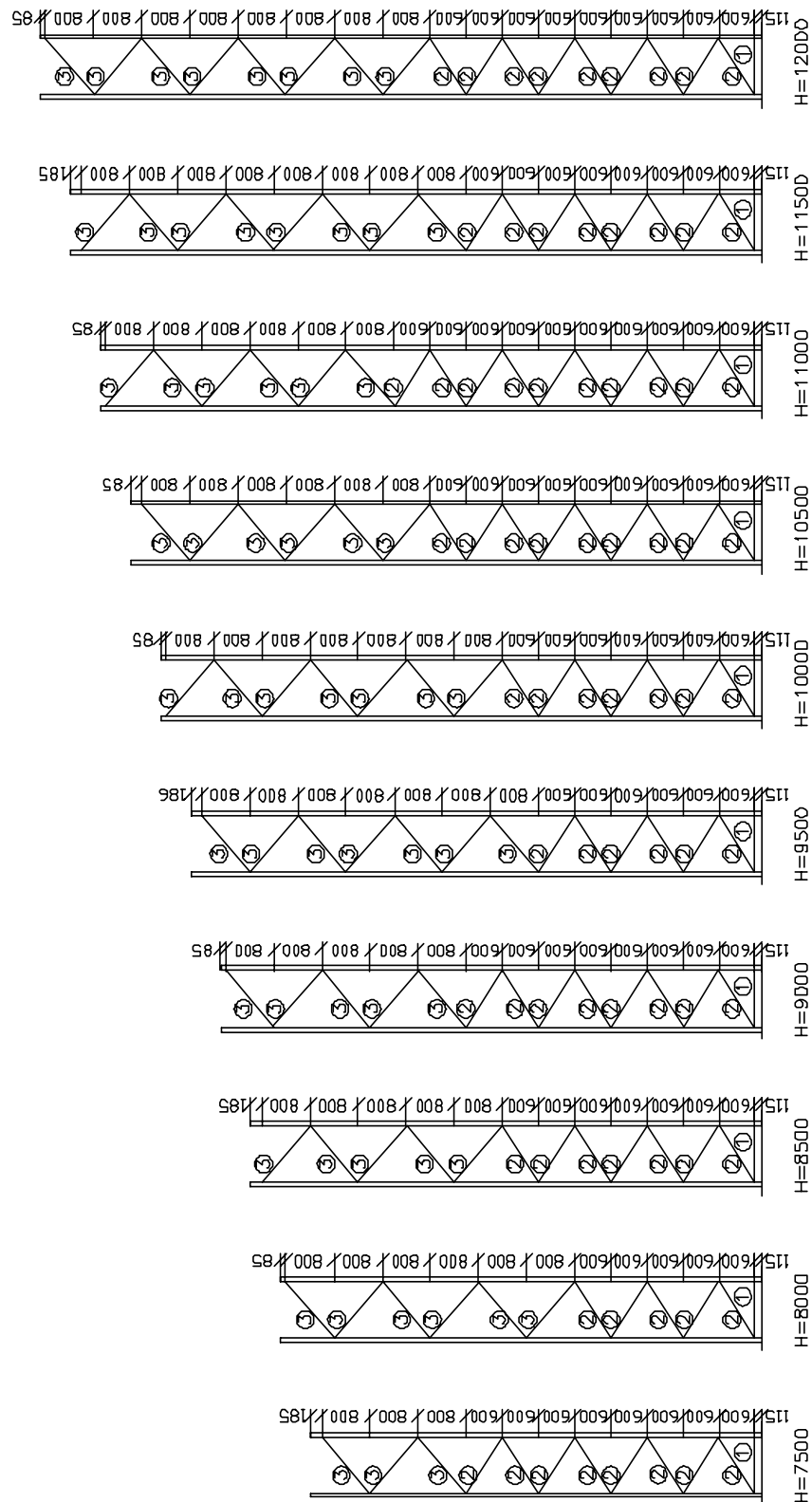
BRACING TABLE FOR P100 UPRIGHTS
H=2000 - 7000 MM



POS.	DESCRIPTION	PROD. CODE
1	HORIZONTAL BRACE	
2	DIAGONAL BRACE	
3	DIAGONAL BRACE	
4	UPRIGHT	
5	BOLT M10x70 DIN931 8.8	057140
6	NUT M10 NYLOC DIN985	058157
7	SLEEVE	057502

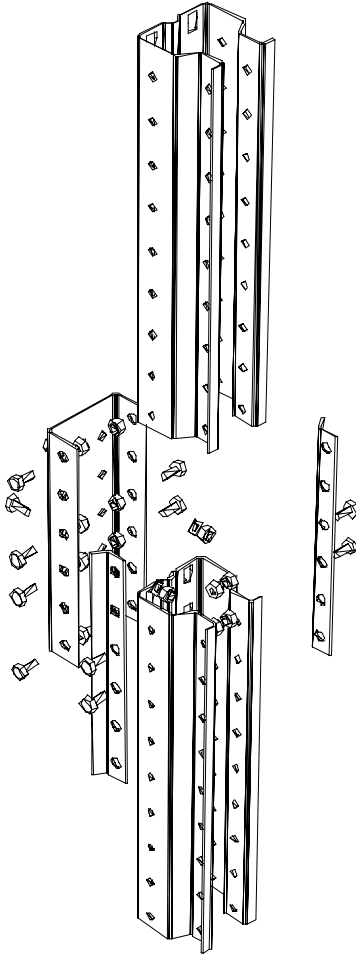
1		
2		
3		
4		
5		057140
6		058157
7		057502

BRACING TABLE FOR P100 UPRIGHTS
H=7500-12000 MM

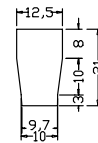
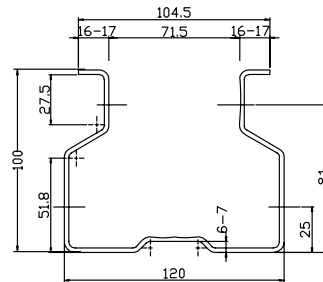
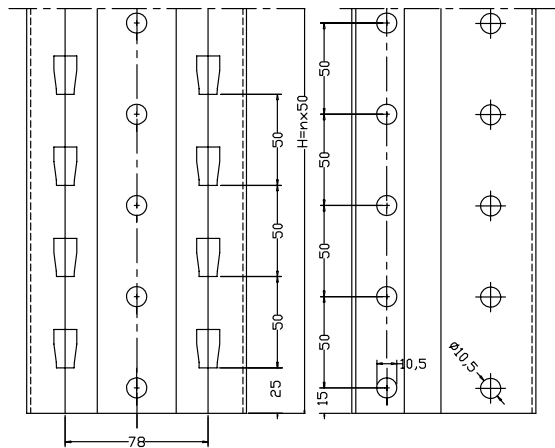


BRACING TABLE FOR P100 UPRIGHTS
H=2000-12000 MM

Height of upright	No of diagonal braces 1200 mm	No of diagonal braces 1600 mm	No of Horizontal braces	Sleeve	Foot plate	Bolt M10x70	Bolt M10x25	Nut M10
2000	3		1	2	2	5	4	9
2500	1	2	1	2	2	5	4	9
3000	2	2	1	2	2	6	4	10
3500	4	1	1	2	2	7	4	11
4000	5	1	1	2	2	8	4	12
4500	7		1	2	2	9	4	13
5000	8		1	2	2	10	4	14
5500	6	2	1	2	2	10	4	14
6000	7	2	1	2	2	11	4	15
6500	5	4	1	2	2	11	4	15
7000	6	4	1	2	2	12	4	16
7500	8	3	1	2	2	13	4	16
8000	5	6	1	2	2	13	4	17
8500	7	5	1	2	2	14	4	18
9000	8	5	1	2	2	15	4	19
9500	6	7	1	2	2	15	4	19
10000	7	7	1	2	2	16	4	19
10500	9	6	1	2	2	17	4	20
11000	10	6	1	2	2	18	4	22
11500	8	8	1	2	2	18	4	22
12000	9	8	1	2	2	19	4	23

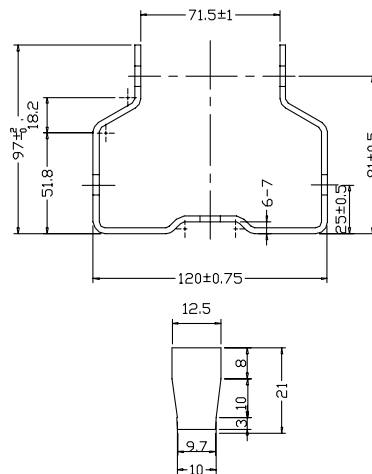
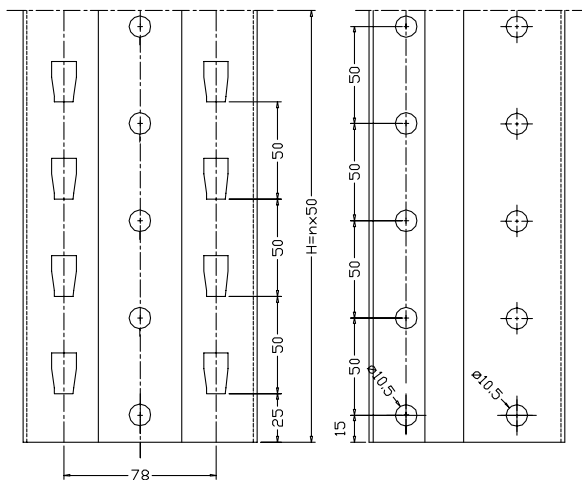
EXTENSIONS P100/120 (Galvanized)	
	
Prod. Code	Description
Complete	
000095	EXTENSION P100
000096	EXTENSION P120
Details	
577221	EXTENSION P100 EXTERNAL
577231	EXTENSION P120 EXTERNAL
577220	EXTENSION P100/120 INTERNAL
Fixing details	
058459	BOLT M10x25 DIN 933 14 PCS.
058157	NUT M10 NYLOC DIN 985 14 PCS
058114	WASHER M10 Ø21x2 MM 2 PCS

UPRIGHT TYPE P120 (Galvanized)



WIDTH : 120 MM
DEPTH : 100 MM
THICKNESS : P120 2,5 MM
P120 3,0 MM
P120 3,5 MM
MAX. LENGTH : 16.000MM

UPRIGHT TYPE P120 LT (Galvanized)

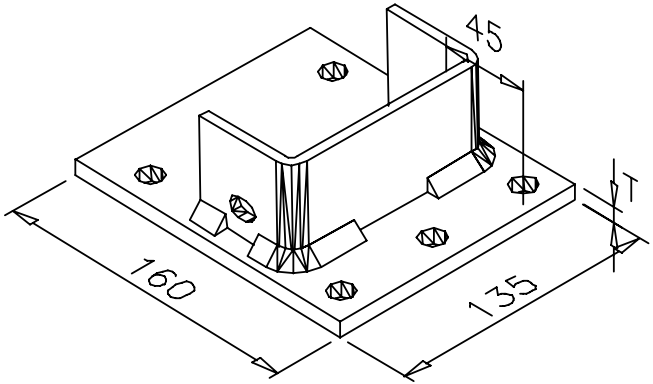


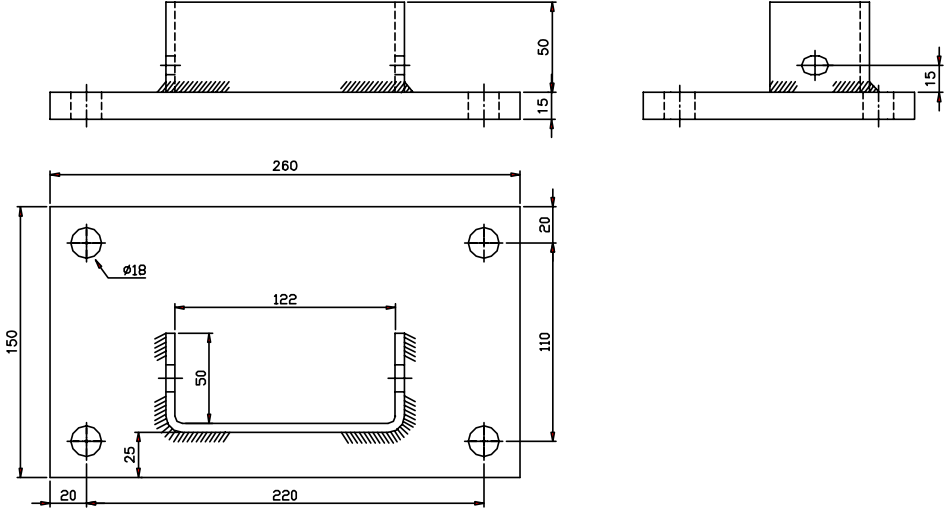
WIDTH : 120 MM
DEPTH : 100 MM
THICKNESS : P120 LT 2,5 MM
P120 LT 3,0 MM
P120 LT 3,5 MM
MAX. LENGTH : 16.000MM

P120 UPRIGHT (Galvanized)

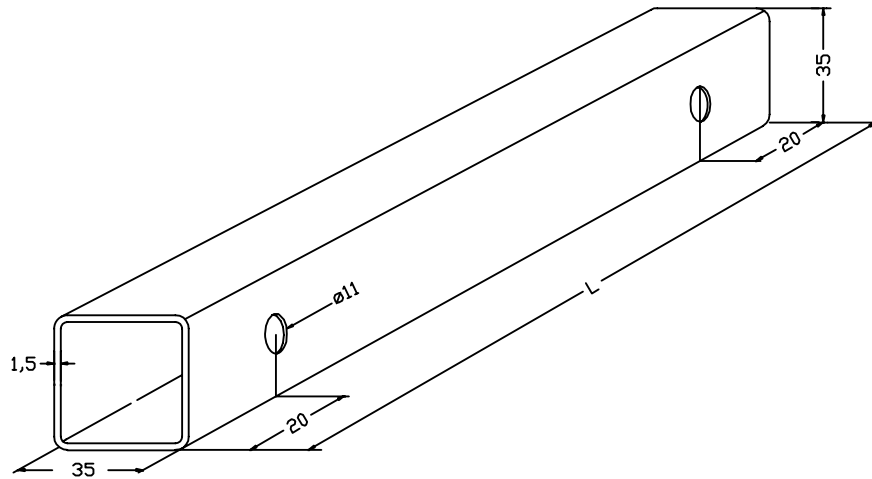
Prod. Code Description

577700	UPRIGHT P120/25	L=6000 MM
577750	UPRIGHT P120/30	L=6000 MM
577800	UPRIGHT P120/35	L=6000 MM
577850	UPRIGHT P120/25 LT	L=6000 MM
577900	UPRIGHT P120/30 LT	L=6000 MM
577950	UPRIGHT P120/35 LT	L=6000 MM

FOOTPLATE P120 (GALVANIZED)		
		
Prod. code	Description	
577250	FOOT PLATE 155x160x5	
577252	FOOT PLATE 155x160x8	
577260	LEVELLING PLATE 155x160x1	
577261	LEVELLING PLATE 155x160x3	
577262	LEVELLING PLATE 155x160x5	
Fixing details (2 pcs / foot plate)		
058459	BOLT M10x25 DIN931 8.8	
058157	NUT M10 NYLOC DIN985	
Floor fixing (2 pcs / foot plate)		
057908	EXPANSION BOLT M12x100 MM	
Loading capacity :		
Foot plate 135x160x5mm :		14 tons / frame
Foot plate 135x160x8mm :		23 tons / frame

FOOTPLATE P120 for high bay systems (GALVANIZED)		
		
Prod. code	Description	
577210	FOOT PLATE 150x220x15	
577212	LEVELLING PLATE 150x220x1	
577213	LEVELLING PLATE 150x220x3	
577214	LEVELLING PLATE 150x220x5	
Fixing details (2 pcs / foot plate)		
058459	BOLT M10x25 DIN931 8.8	
058157	NUT M10 NYLOC DIN985	
Floor fixing (2 pcs / foot plate)		
057907	EXPANSION BOLT M16x110 MM	
Loading capacity : Up to 30 tons / frame depending of frame height.		

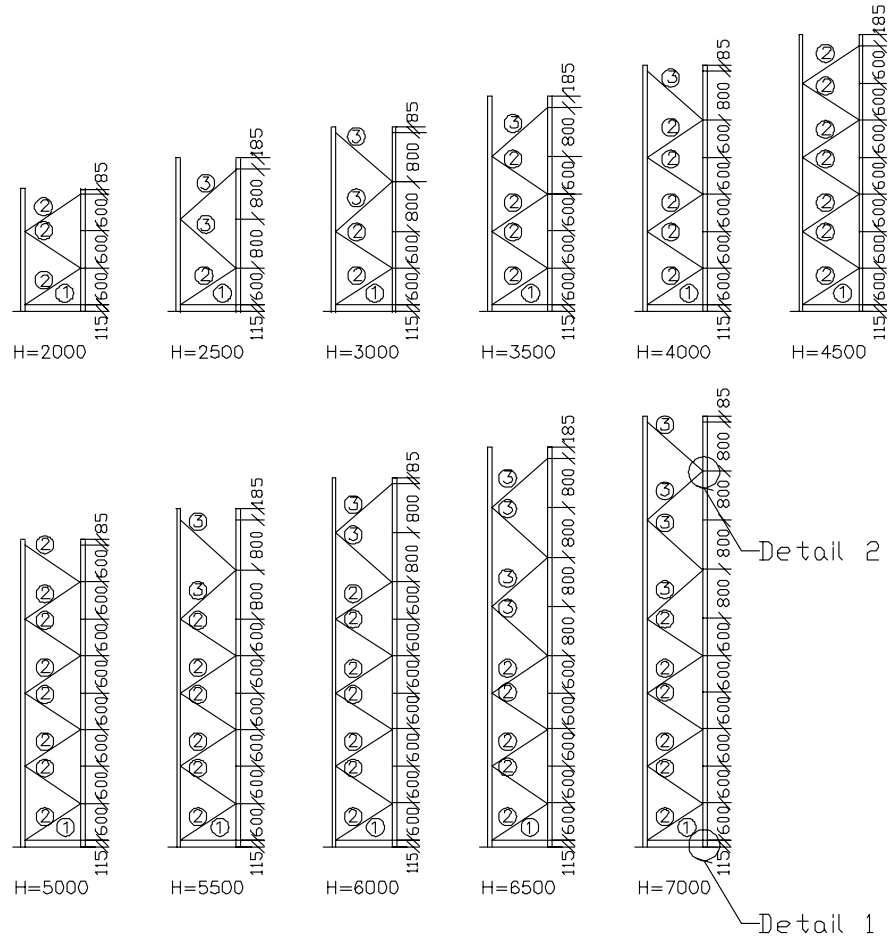
**HORIZONTAL AND DIAGONAL BRACES
(Galvanized) P120 UPRIGHTS**



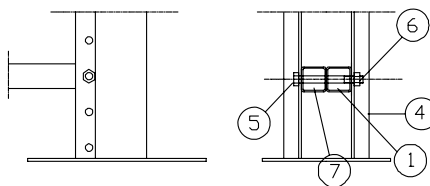
Prod. code Description Length in mm.

577100	HOR BRACE P120 S550	L= 428
577101	DIAG BRACE P120 S550-D1200	L= 755
577102	DIAG BRACE P120 S550-D1600	L= 929
577110	HOR BRACE P120 S800	L= 678
577111	DIAG BRACE P120 S800-D1200	L= 916
577112	DIAG BRACE P120 S800-D1600	L=1063
577120	HOR BRACE P120 S900	L= 778
577121	DIAG BRACE P120 S900-D1200	L= 991
577122	DIAG BRACE P120 S900-D1600	L=1128
577130	HOR BRACE P120 S950	L= 828
577131	DIAG BRACE P120 S950-D1200	L=1030
577132	DIAG BRACE P120 S950-D1600	L=1163
577140	HOR BRACE P120 S1050	L= 928
577141	DIAG BRACE P120 S1050-D1200	L=1112
577142	DIAG BRACE P120 S1050-D2600	L=1235
577150	HOR BRACE P120 S1300	L=1178
577151	DIAG BRACE P120 S1300-D1200	L=1327
577152	DIAG BRACE P120 S1300-D1600	L=1431
577160	HOR BRACE P120 S1550	L=1428
577161	DIAG BRACE P120 S1550-D1200	L=1552
577162	DIAG BRACE P120 S1550-D1600	L=1642
577170	HOR BRACE P120 S1800	L=1678
577171	DIAG BRACE P120 S1800-D1200	L=1784
577172	DIAG BRACE P120 S1800-D1600	L=1863
577180	HOR BRACE P120 S2000	L=1878
577181	DIAG BRACE P120 S2000-D1200	L=1974
577182	DIAG BRACE P120 S2000-D1600	L=2045

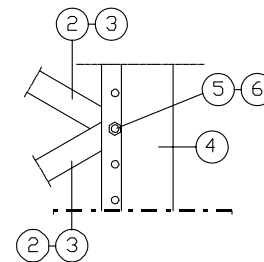
BRACING TABLE FOR P120 UPRIGHTS
H=2000 - 7000 MM



Detail 1



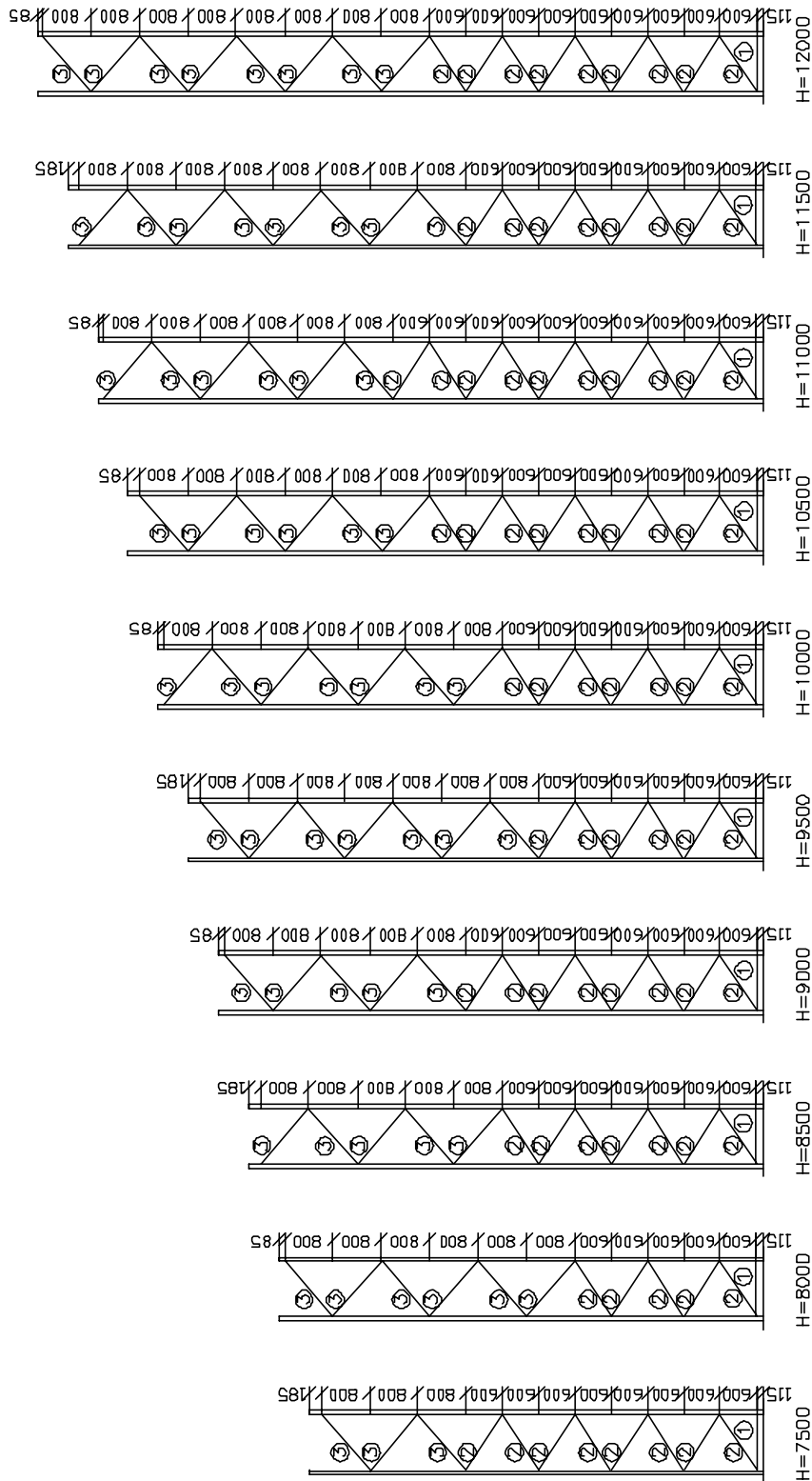
Detail 2



POS.	DESCRIPTION	PROD. CODE
1	HORIZONTAL BRACE	
2	DIAGONAL BRACE	
3	DIAGONAL BRACE	
4	UPRIGHT	
5	BOLT M10x90 8.8	057144
6	NUT M10 DIN 985	058157
7	SPACER 35x35x40	577190

1		
2		
3		
4		
5		057144
6		058157
7		577190

BRACING TABLE FOR P120 UPRIGHTS
H=7500-12000 MM

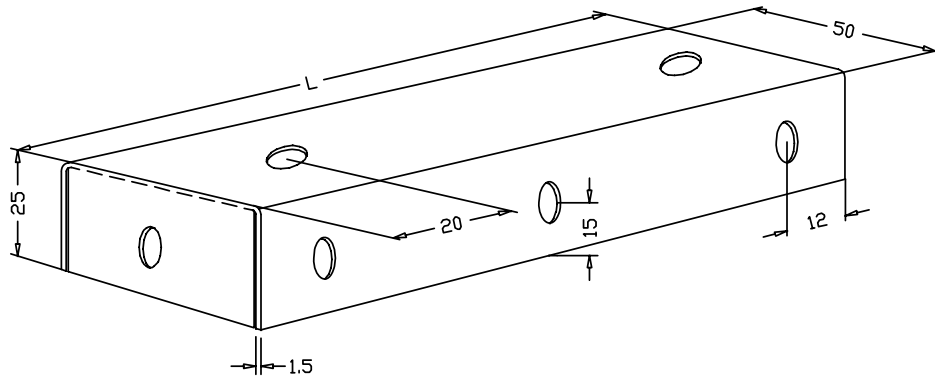


BRACING TABLE FOR P120 UPRIGHTS
H=2000-12000 MM

Height of upright	No of diagonal braces 1200 mm	No of diagonal braces 1600 mm	No of Horizontal braces	Sleeve	Foot plate	Bolt M10x90	Bolt M10x25	Nut M10
2000	3		1	2	2	5	4	9
2500	1	2	1	2	2	5	4	9
3000	2	2	1	2	2	6	4	10
3500	4	1	1	2	2	7	4	11
4000	5	1	1	2	2	8	4	12
4500	7		1	2	2	9	4	13
5000	8		1	2	2	10	4	14
5500	6	2	1	2	2	10	4	14
6000	7	2	1	2	2	11	4	15
6500	5	4	1	2	2	11	4	15
7000	6	4	1	2	2	12	4	16
7500	8	3	1	2	2	13	4	16
8000	5	6	1	2	2	13	4	17
8500	7	5	1	2	2	14	4	18
9000	8	5	1	2	2	15	4	19
9500	6	7	1	2	2	15	4	19
10000	7	7	1	2	2	16	4	19
10500	9	6	1	2	2	17	4	20
11000	10	6	1	2	2	18	4	22
11500	8	8	1	2	2	18	4	22
12000	9	8	1	2	2	19	4	23

SPACER (Galvanized)

ALL HOLES $\varnothing 11$ MM



Prod. code Description Length

Complete

000499	SPACER COMPL.	L=160	MM
000500	SPACER COMPL.	L=200	MM
000501	SPACER COMPL.	L=250	MM
000502	SPACER COMPL.	L=300	MM
000508	SPACER COMPL.	L=400	MM
000503	SPACER COMPL.	L=450	MM
000504	SPACER COMPL.	L=700	MM
000505	SPACER COMPL.	L=950	MM
000506	SPACER COMPL.	L=1200	MM
000507	SPACER COMPL.	L=1450	MM

000510 BRACKET F. BRACE
(only to be used for single uprights in FIFO racks)

Details

575200	SPACER	L=160	MM
575205	SPACER	L=200	MM
575210	SPACER	L=250	MM
575215	SPACER	L=300	MM
575217	SPACER	L=400	MM
575220	SPACER	L=450	MM
575225	SPACER.	L=700	MM
575230	SPACER	L=950	MM
575235	SPACER	L=1200	MM
575240	SPACER	L=1450	MM

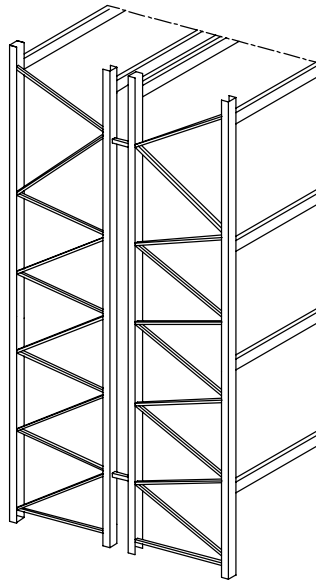
575202 BRACKET F. BRACE
(only to be used for single uprights in FIFO racks)

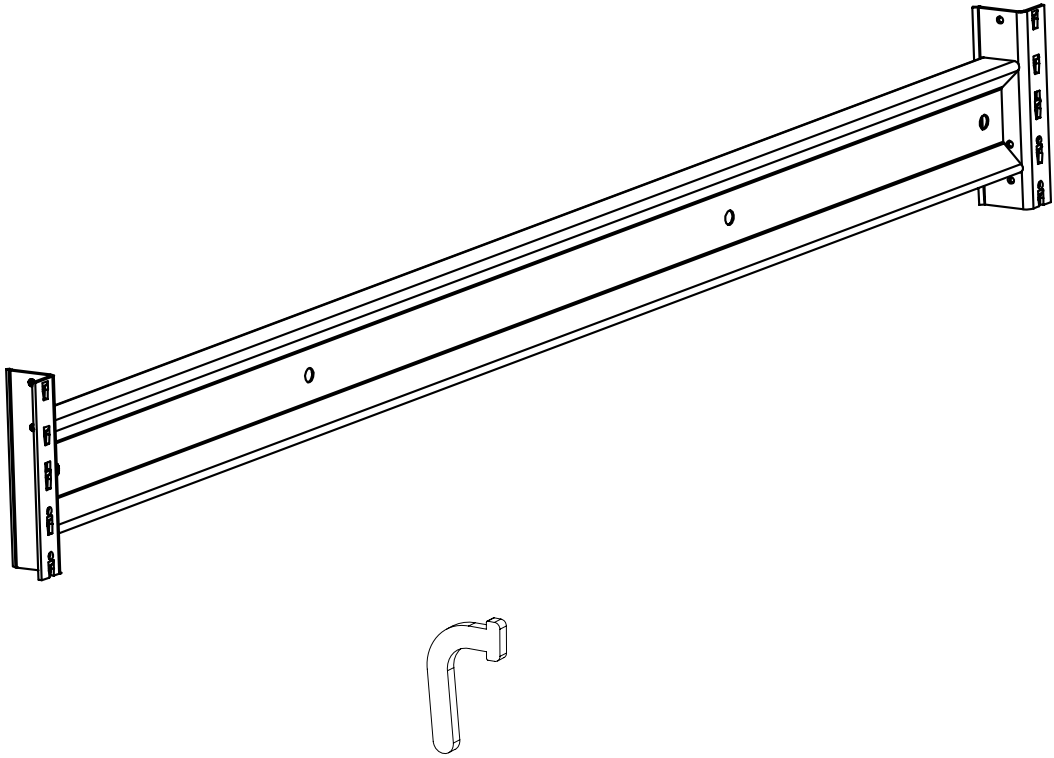
Fixing details (2 pcs / spacer)

058459	BOLT M10x25 DIN933
057584	NUT M10 kv.8

Guidelines for the use of spacers

Guidelines for the use of spacers :
Double racks should always be equipped with spacers between the frames.
For frames up to 6 metres without extensions there should always be two spacers , one in connection with the lowest diagonal brace and one in connection with the upper diagonal brace.
For frames higher than 6 metres there should be an additional spaces in the middle of the frames.
For extended frames there should be a spacer in the bottom , top and one in connection with each extensions.



I-BEAM (light Grey RAL 9002)																																													
 SAFETY PIN																																													
PRODUCED / DELIVERED FROM NORWAY AND FINLAND (RAL 9002 Light Grey)																																													
<table border="1"> <thead> <tr> <th>Prod. code</th><th>Description</th></tr> </thead> <tbody> <tr> <td colspan="2">Complete incl. New safety pin</td></tr> <tr><td>000110</td><td>BEAM P90 I100/15 X 950 MM</td></tr> <tr><td>000111</td><td>BEAM P90 I100/15 X 1200 MM</td></tr> <tr><td>000112</td><td>BEAM P90 I100/15 X 1370 MM</td></tr> <tr><td>000113</td><td>BEAM P90 I100/15 X 1800 MM</td></tr> <tr><td>000114</td><td>BEAM P90 I100/15 X 1850 MM</td></tr> <tr><td>000115</td><td>BEAM P90 I100/15 X 2300 MM</td></tr> <tr><td>000116</td><td>BEAM P90 I100/15 X 2700 MM</td></tr> <tr><td>000117</td><td>BEAM P90 I100/15 X 2750 MM</td></tr> <tr><td colspan="2"> </td></tr> <tr><td>000121</td><td>BEAM P90 I125/15 X 1850 MM</td></tr> <tr><td>000122</td><td>BEAM P90 I125/15 X 2300 MM</td></tr> <tr><td>000123</td><td>BEAM P90 I125/15 X 2700 MM</td></tr> <tr><td>000124</td><td>BEAM P90 I125/15 X 2750 MM</td></tr> <tr><td colspan="2"> </td></tr> <tr><td>000133</td><td>BEAM P90 I125/20 X 2700 MM</td></tr> <tr><td>000134</td><td>BEAM P90 I125/20 X 2750 MM</td></tr> <tr><td>000135</td><td>BEAM P90 I125/20 X 3400 MM</td></tr> <tr><td colspan="2"> </td></tr> <tr><td>000142</td><td>BEAM P90 I140/22 X 3400 MM</td></tr> <tr><td>000143</td><td>BEAM P90 I140/22 X 3600 MM</td></tr> </tbody> </table>	Prod. code	Description	Complete incl. New safety pin		000110	BEAM P90 I100/15 X 950 MM	000111	BEAM P90 I100/15 X 1200 MM	000112	BEAM P90 I100/15 X 1370 MM	000113	BEAM P90 I100/15 X 1800 MM	000114	BEAM P90 I100/15 X 1850 MM	000115	BEAM P90 I100/15 X 2300 MM	000116	BEAM P90 I100/15 X 2700 MM	000117	BEAM P90 I100/15 X 2750 MM			000121	BEAM P90 I125/15 X 1850 MM	000122	BEAM P90 I125/15 X 2300 MM	000123	BEAM P90 I125/15 X 2700 MM	000124	BEAM P90 I125/15 X 2750 MM			000133	BEAM P90 I125/20 X 2700 MM	000134	BEAM P90 I125/20 X 2750 MM	000135	BEAM P90 I125/20 X 3400 MM			000142	BEAM P90 I140/22 X 3400 MM	000143	BEAM P90 I140/22 X 3600 MM	
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000143	BEAM P90 I140/22 X 3600 MM																																												

PRODUCED / DELIVERED FROM NORWAY AND FINLAND (RAL 9002 Light Grey)
Prod. code Description

574000 BEAM P90 I100/15 X 950 MM
 574001 BEAM P90 I100/15 X 1200 MM
 574002 BEAM P90 I100/15 X 1370 MM
 574010 BEAM P90 I100/15 X 1800 MM
 574011 BEAM P90 I100/15 X 1850 MM
 574012 BEAM P90 I100/15 X 2300 MM
 574013 BEAM P90 I100/15 X 2700 MM
 574014 BEAM P90 I100/15 X 2750 MM

574021 BEAM P90 I125/15 X 1850 MM
 574022 BEAM P90 I125/15 X 2300 MM
 574023 BEAM P90 I125/15 X 2700 MM
 574024 BEAM P90 I125/15 X 2750 MM

574033 BEAM P90 I125/20 X 2700 MM
 574034 BEAM P90 I125/20 X 2750 MM
 574035 BEAM P90 I125/20 X 3400 MM

574042 BEAM P90 I140/22 X 3400 MM
 574043 BEAM P90 I140/22 X 3600 MM

556090 SAFETY PIN

NOTE!

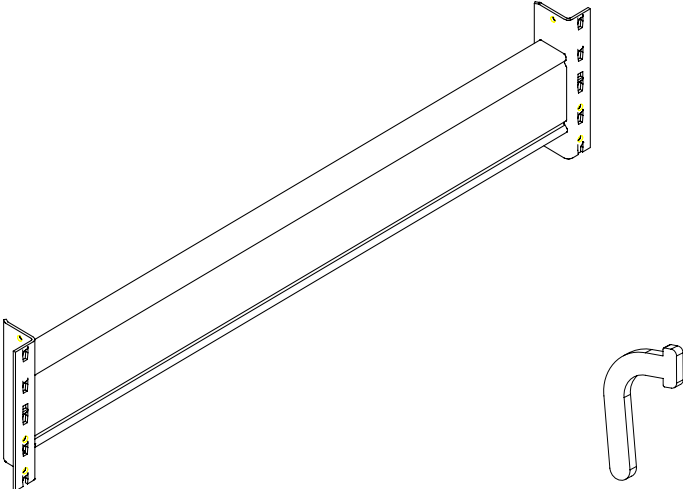
All **standard beams** are delivered with **A3 claws**.
 They fit to the upright profiles with material thickness
 up to 2,5 mm as listed below:

P90/L(1.6mm) - P90/M (1,9mm) - P90/H (2,35mm)
P100/20 - P100/25 - P100/20 LT - P100/25 LT
P120/25 - P120/25 LT

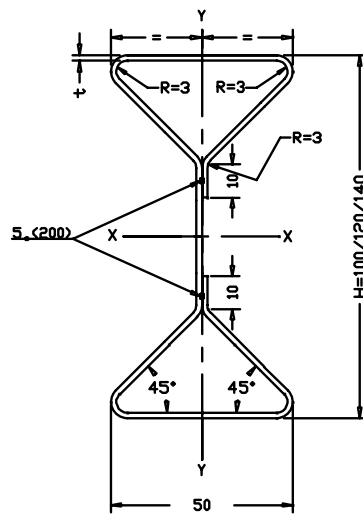
IF THE **UPRIGHT MATERIAL IS THICKER THAN 2,5 MM** THEN THE CLAWS MUST BE CHANGED TO **A4 MODEL**.

A4 claws must be used with the following uprights:

P100/30 - P100/30 LT
P120/30 - P120/35 - P120/30 LT - P120/35 LT

BOX BEAM (Light Grey RAL 9002)	
	
SAFETY PIN	
PRODUCED / DELIVERED FROM SWEDEN	
Prod. code	Description
Complete incl. New safety pin	
000275	BEAM P90 BOX 100 X 2700 MM
000276	BEAM P90 BOX 100 X 2750 MM
000280	BEAM P90 BOX 120 X 2700 MM
000281	BEAM P90 BOX 120 X 2750 MM
000282	BEAM P90 BOX 120 X 3400 MM
000290	BEAM P90 BOX 140 X 3400 MM
000291	BEAM P90 BOX 140 X 3600 MM
000292	BEAM P90 BOX 140 X 4200 MM
000294	BEAM P90 BOX 140 X 4400 MM
Details	
581000	BEAM P90 BOX 100 X 2700 MM
581005	BEAM P90 BOX 100 X 2750 MM
581040	BEAM P90 BOX 120 X 2700 MM
581045	BEAM P90 BOX 120 X 2750 MM
581060	BEAM P90 BOX 120 X 3400 MM
581100	BEAM P90 BOX 140 X 3400 MM
581120	BEAM P90 BOX 140 X 3600 MM
581150	BEAM P90 BOX 140 X 4200 MM
581152	BEAM P90 BOX 140 X 4400 MM
556090	SAFETY PIN
NOTE! All standard beams are delivered with A3 claws . They fit to the upright profiles with material thickness up to 2,5 mm as listed below: P90/L (1.6mm) - P90/M (1,9mm) - P90/H (2,35mm) P100/20 - P100/25 - P100/20 LT - P100/25 LT P120/25 - P120/25 LT IF THE UPRIGHT MATERIAL IS THICKER THAN 2,5 MM THEN THE CLAWS MUST BE CHANGED TO A4 MODEL . A4 claws must be used with the following uprights: P100/30 - P100/30 LT P120/30 - P120/35 - P120/30 LT - P120/35 LT	

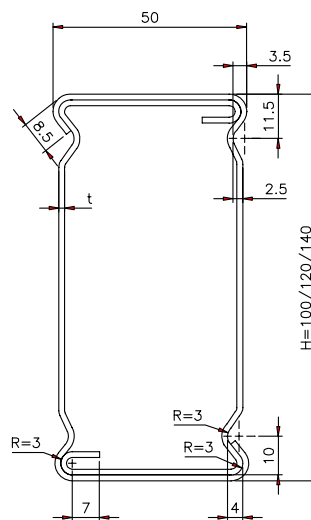
I-BEAM PROFILES



The I-beam profiles can be delivered in the following dimensions :

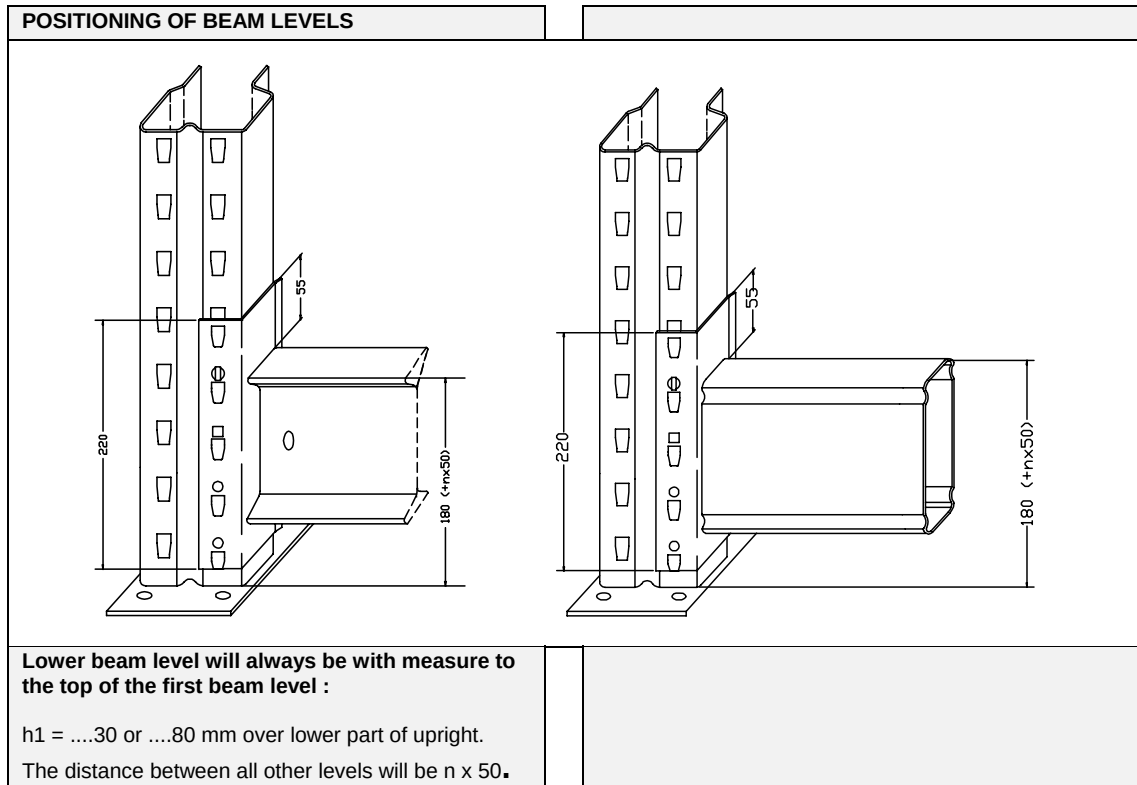
Profile	Height	Material thickness
I100/15	100 MM	1,5 MM
I125/15	125 MM	1,5 MM
I125/20	125 MM	2,0 MM
I140/22	140 MM	2,2 MM

BOX BEAM PROFILES

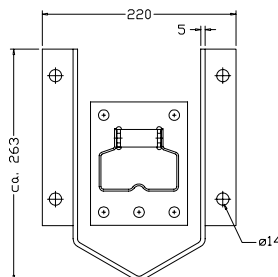
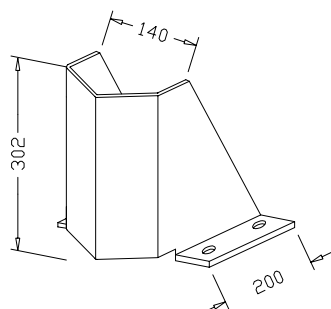


The Box beam profiles can be delivered in the following dimensions :

Profile	Height	Material thickness
BOX 100/15	100 MM	1,5 MM
BOX 120/16	120 MM	1,6 MM
BOX 140/18	140 MM	1,8 MM



UPRIGHT PROTECTOR (Yellow RAL1004) FOR L, M AND H UPRIGHTS

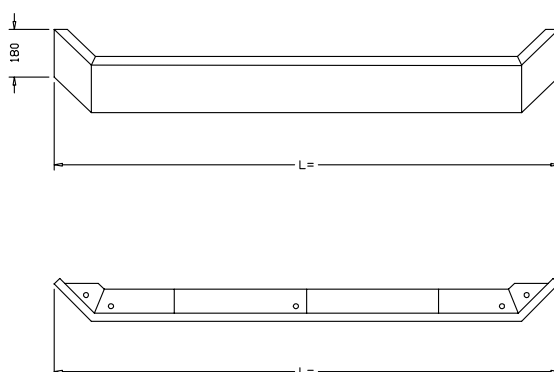


Prod. code	Description	Material thickness
007536	UPRIGHT PROTECTOR H=302MM	5,0 MM
565288	UPRIGHT PROTECTOR H=302MM	5,0 MM

Fixing details (4 pcs / upright protector)
057908 EXPANSION BOLT M12x100 MM

NOTE! Only for L, M and H uprights with standard foot plate 12 tons (110 x 140 mm) and 15 tons (122 x 160 mm)

FRAME PROTECTORS (Yellow RAL 1004)



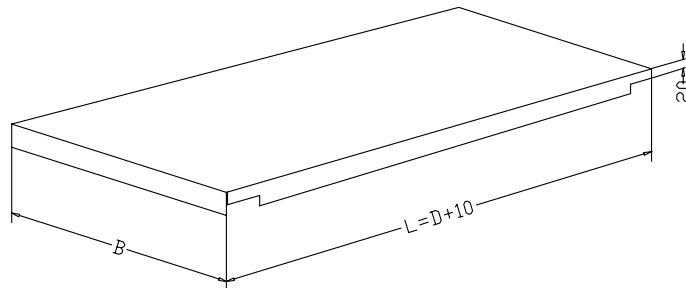
Prod. code	Description
007534	FRAME PROTECTOR 1x1050 L=1160 MM
007535	FRAME PROTECTOR 2x1050 L=2410 MM
565256	FRAME PROTECT. 1x800 L= 910 MM
565258	FRAME PROTECTOR 1x1050 L=1160 MM
565260	FRAME PROTECTOR 2x800 L=1910 MM
565265	FRAME PROTECTOR 2x1050 L=2410 MM

Material thickness
T=5,0 MM

Fixing details
057908 EXPANSION BOLT M12x100 MM

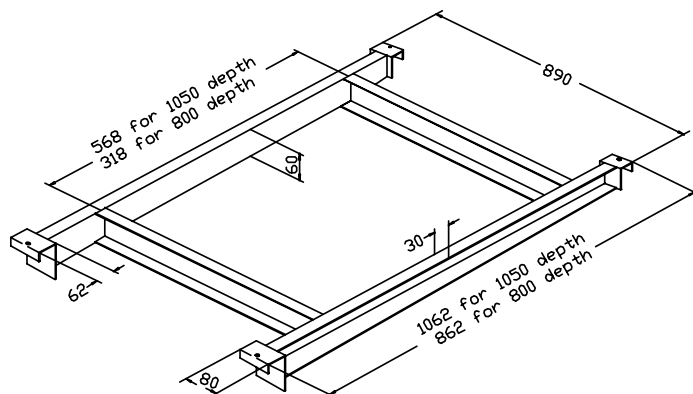
Prod. code complete	Prod. code	Description	No of exp. Bolts M12x100, 057908
	565256	FRAME PROTECT. 1x800 L= 910 MM	4
007534	565258	FRAME PROTECTOR 1x1050 L=1160 MM	4
	565260	FRAME PROTECTOR 2x800 L=1910 MM	5
007535	565265	FRAME PROTECTOR 2x1050 L=2410 MM	6

SHELF (Light Grey RAL 9002)



Prod. code	Description	B x D	Material thickness	Loading capacity kg/shelf
564040	SHELF	375 x 800 MM	1,25 MM	200 kg
564041	SHELF	375 x 950 MM	1,25 MM	200 kg
564156	SHELF	375 x 1050 MM	1,25 MM	200 kg
564050	SHELF	455 x 800 MM	1,25 MM	200 kg
564042	SHELF	455 x 950 MM	1,25 MM	200 kg
564052	SHELF	455 x 1050 MM	1,25 MM	200 kg

TUNNEL GUARD (Light Grey RAL 9002)



Prod. code	Description
565065	TUNNEL GUARD 800 MM
565070	TUNNEL GUARD 950 MM
565067	TUNNEL GUARD 1050 MM
565069	TUNNEL GUARD 1050 MM

Pallet 800x1200:

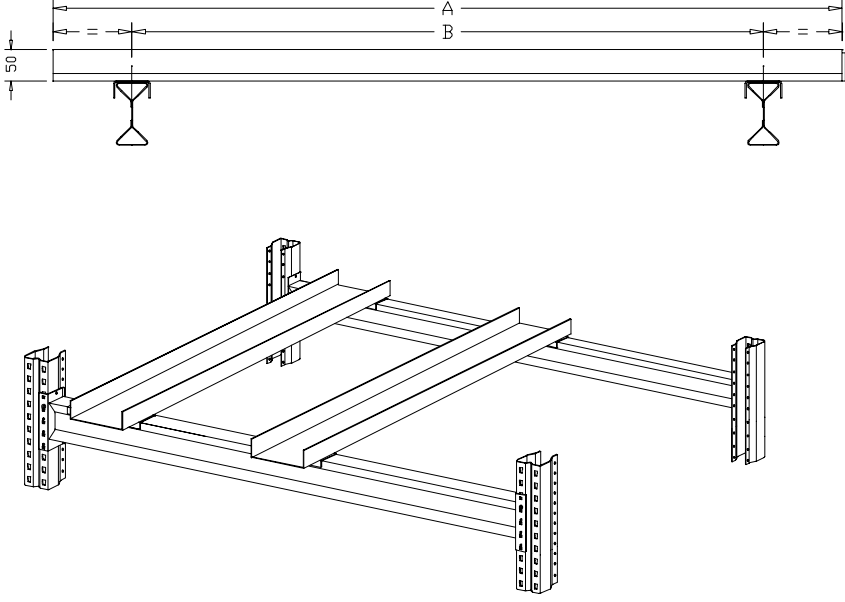
565065	TUNNEL GUARD 800 MM
565067	TUNNEL GUARD 1050 MM

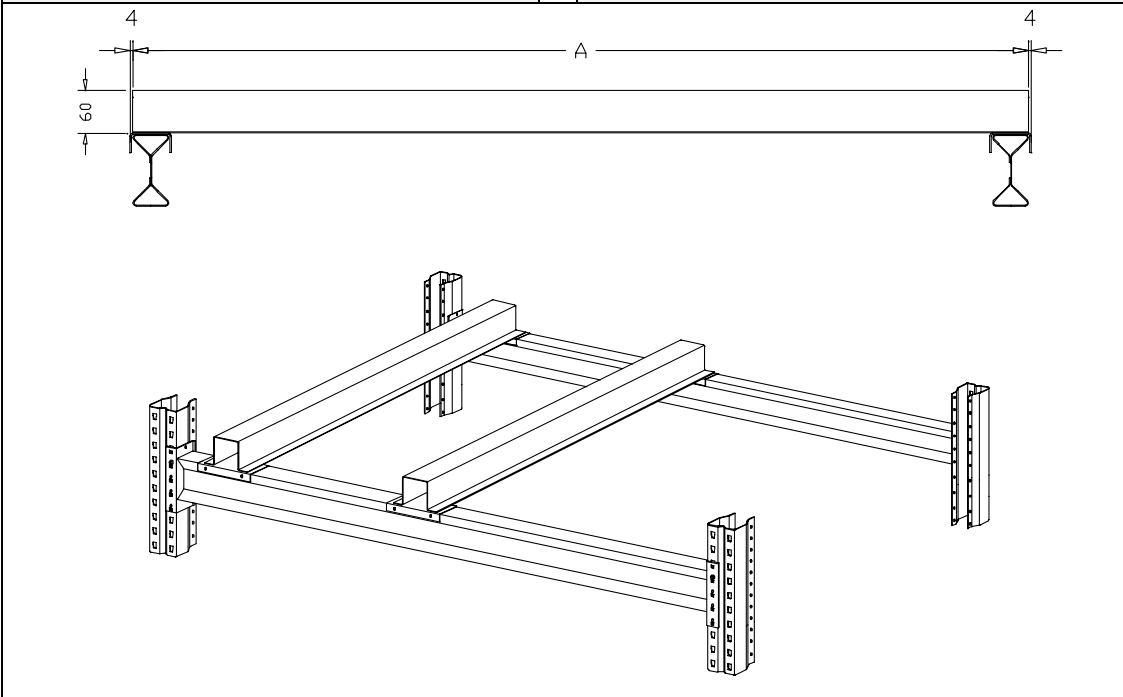
Pallet 1000x1200:

565069	TUNNEL GUARD 1050 MM
565070	TUNNEL GUARD 950 MM

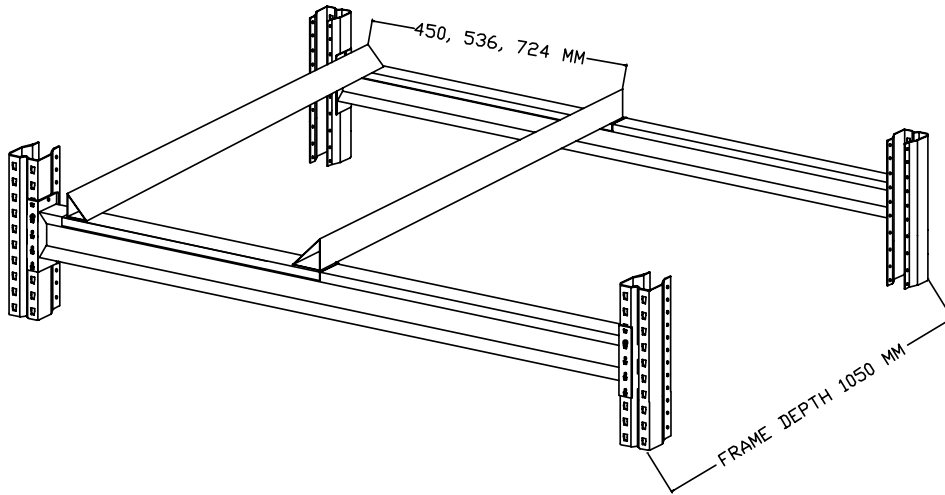
Loading capacity. kg
1000

08/02/99

SKID CHANNEL (Light Grey RAL 9002)	
	
Prod. code Description Container 800x1200 007161 SKID CHANNEL complete 880X1250 MM 590314 SKID CHANNEL 200x1250 MM 590312 FIXING ANGLE 25x25x640 MM Container 1000x1200 007129 SKID CHANNEL complete 1080X1250 MM 590314 SKID CHANNEL 200x1250 MM 590311 FIXING ANGLE 25x25x840 MM Fixing details (4 pcs / pair) 058190 BOLT M8x20 058255 NUT M8 NYLOC	
Loading capacity. Kg/pair 600	

FORK ENTRY BAR (Light Grey RAL 9002)	
	
Prod. code	Description
590319	FORK ENTRY BAR 60x70 A=1050 MM

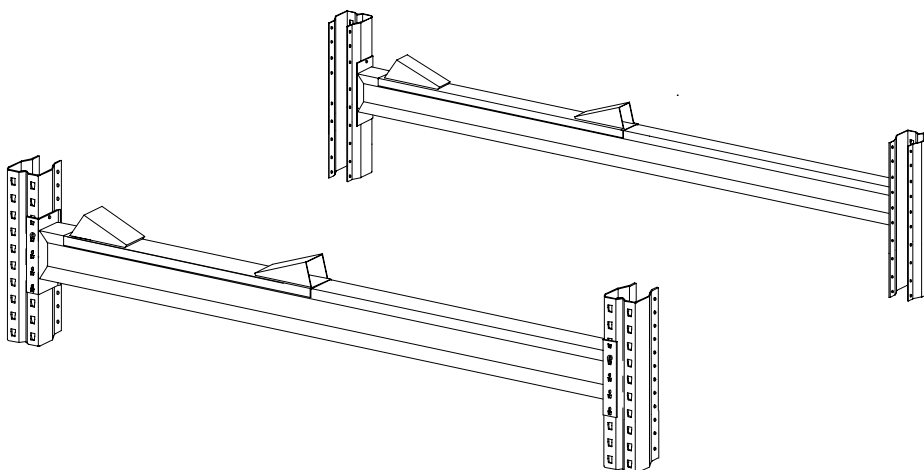
BARREL/DRUM CRADLE (Light Grey RAL 9002)



Prod. code	Description	Diameter
590307	BARREL/DRUM CRADLE	ø320 - 500 MM
590308	BARREL/DRUM CRADLE	ø500 - 1000 MM
590309	BARREL/DRUM CRADLE	ø1000 - 1400 MM

Prod. code	Loading capacity. Kg
590307	400
590308	1000
590309	1200

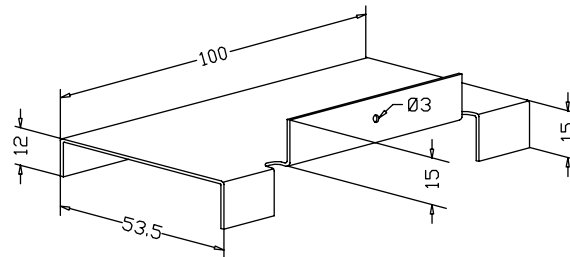
BARREL STOP (Light Grey RAL 9002)



Prod. code	Description
590306	BARREL STOP W=344 MM

Loading cap. Kg
400

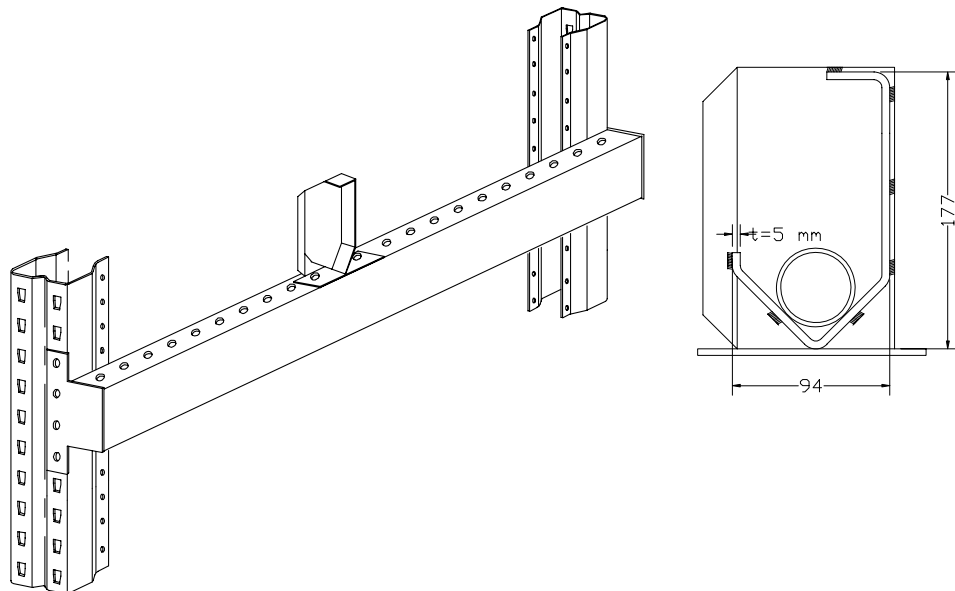
BRACKET FOR WOODEN SHELF (Galvanized)



Prod. code Description

565095 BRACKET FOR WOODEN SHELF

CABLE REEL SUSPENSION (Light grey RAL 9002)



Prod. code Description

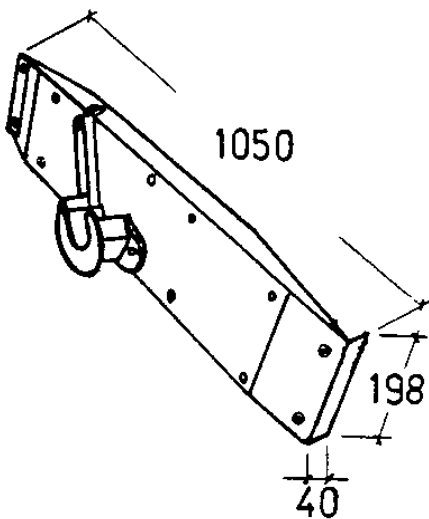
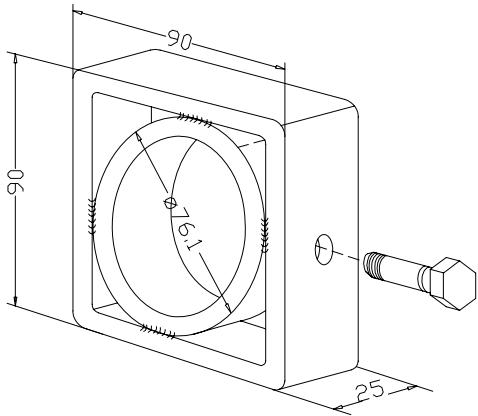
000104 ADJUSTABLE CABLE REEL
SUSPENSION 1050 MM
576303 CABLE REEL AXLE CARRIER 1050 MM
(2 No pr. set)
576304 CABLE REEL GUIDING DEVICE R
576305 CABLE REEL GUIDING DEVICE L

Fixing details pr. complete set.

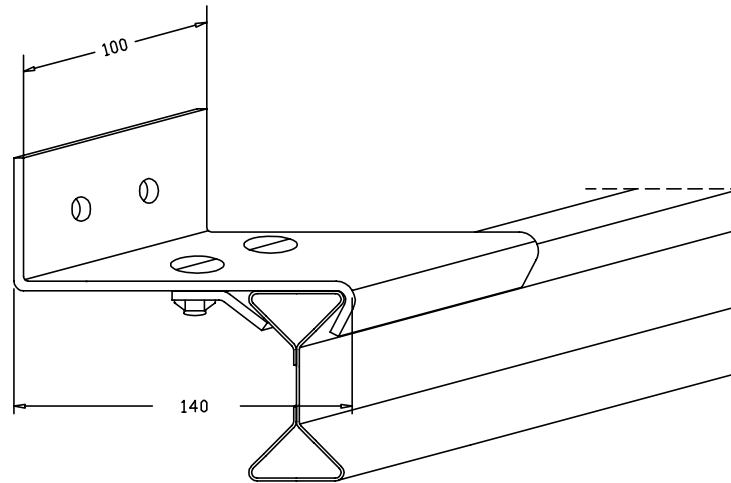
058459 BOLT M10x25 DIN933 12 PCS
057584 NUT M10 8.8 12 PCS

Loading cap. 1000 kg / set

Tube length = Clear width - 30 mm

CABLE DRUM		
		
Prod. code	Description	
590323	CABLE DRUM SUPPORT (2 No pr. set)	
590321	SHAFT SUPPORT R	
590322	SHAFT SUPPORT L	
Fixing details pr. complete set.		
058459	BOLT M10x25 DIN933	8 PCS
058157	NUT M10 NYLOC	8 PCS
STOP FOR CABLE REEL Ø61 MM		
		
Prod. code	Description	
000101	STOP FOR CABLE REEL complete (set of 2 No.)	
556319	STOP FOR CABLE REEL Ø61mm	
Fixing details (included)		
058459	BOLT M10x25 DIN933	1 PCS

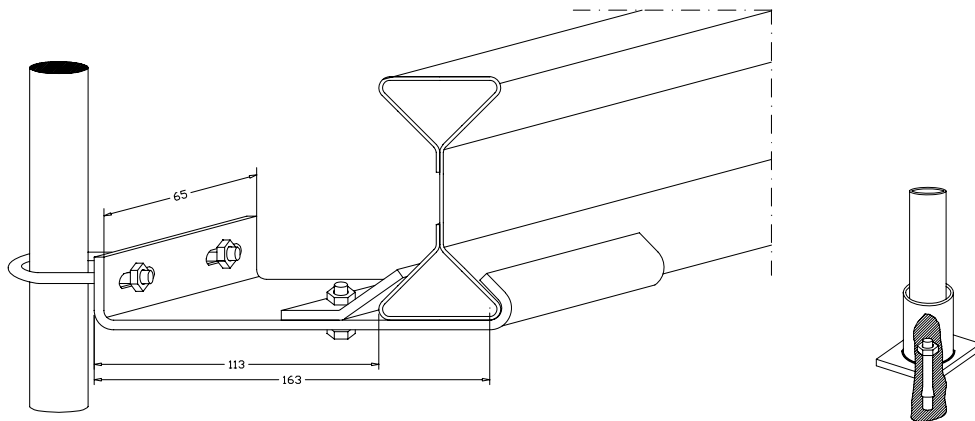
PALLET STOP FOR PALLETS (Light grey RAL 9002)



Prod. code	Description
573113	PALLET STOP L=100 MM

Fixing details	
057576	BOLT M10x30 KV.8 2 PCS.
057584	NUT M10 2 PCS.

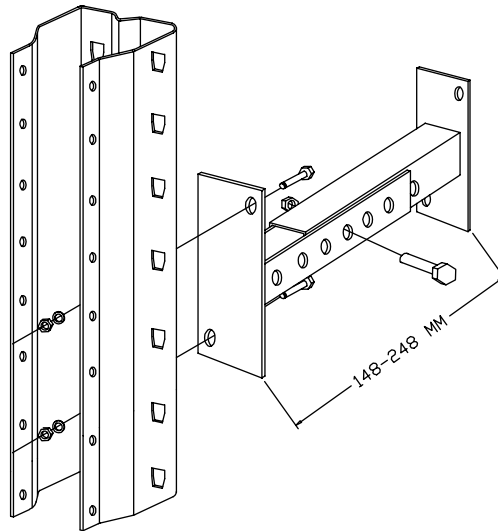
PALLET STOP WITH TUBE (Light grey RAL 9002)



Prod. code	Description
007160	PALLET STOP, FLOOR FIXING
007199	PALLET STOP, LOAD.
590340	PALLET STOP, SUPPORT
590341	PALLET STOP, BRACKET
590343	PALLET STOP FLOOR BRACKET
046293	CLAMP FOR TUBE

Fixing details	
058190	BOLT M8x20 4 PCS.
058203	NUT M8 4 PCS.

BRACKET FOR WALL (Light grey RAL 9002)



Prod .code Description

576050 BRACKET FOR WALL, ADJUSTABLE
(includes 2 No. of brackets)

Fixing details (included in prod. code)

058251 1 No. BOLT M8x55
058203 1 No. NUT M8

Fixing details (not included in prod. code)

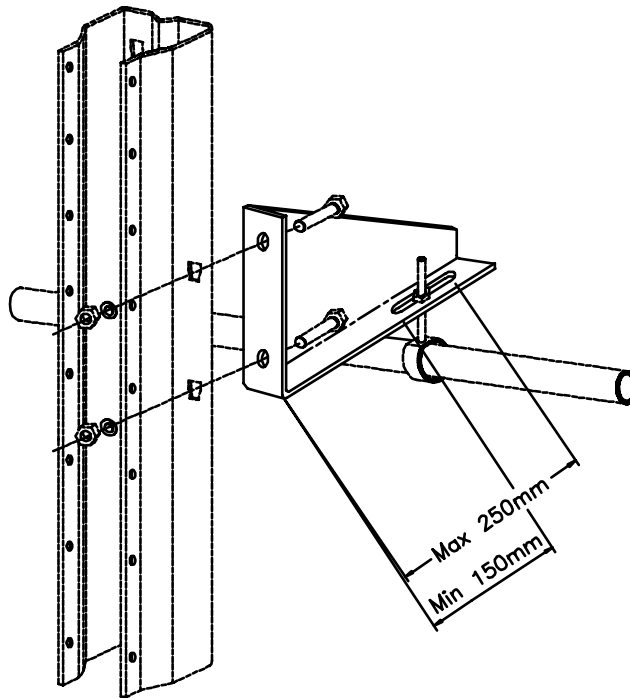
Fixation to frame : 2 No. of each

058459 BOLT M10x25 DIN933
058157 NUT M10 NYLOC
058114 WASHER M10

Fixation to concrete wall/column : 2 No. of each

057843 EXPANSION BOLT M10x95 MM

BRACKET FOR SPRINKLER (Light grey RAL 9002)

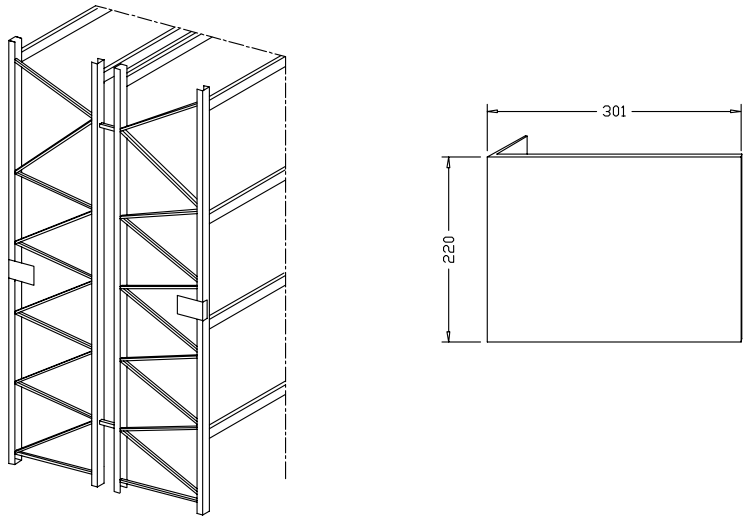


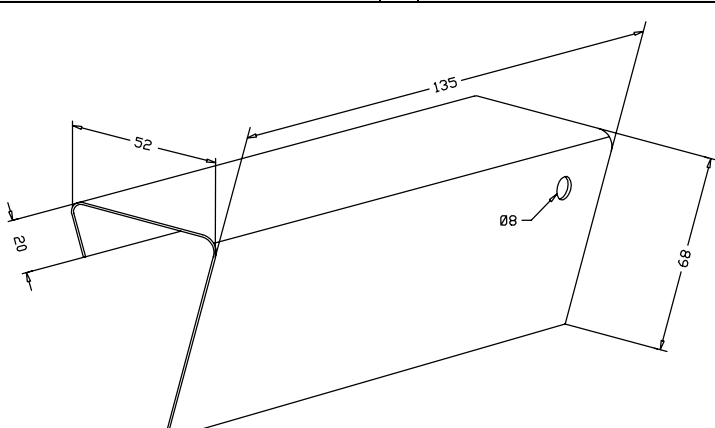
Prod .code Description

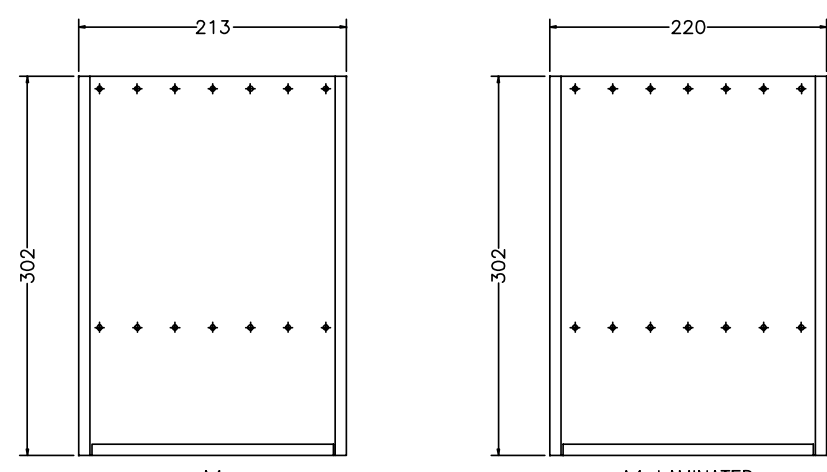
576050 BRACKET FOR SPRINKLER
Adjustable 150-250mm (suitable for frame distance
300-500mm)
Clamp device for tube not included..
Fixing details not included.

Fixing details : 2 No. of each

058459 BOLT M10x25 DIN933
058157 NUT M10 NYLOC
058114 WASHER M10

INFO SIGNS (Light grey RAL 9002)		
		
Prod.code	Description	
575156	INFO - SIGN 220x300 MM, R	
575164	INFO - SIGN 220x300 MM, L	

LABEL HOLDER (Light grey RAL 9002)	
	
Prod. code	Description
565091	LABEL HOLDER, BEAM

LOAD SIGN LABEL HOLDER (Galvanized)	
	
Prod. code	Description
575157	LOAD SIGN LABEL HOLDER A4 (for standard load signs)
575158	LOAD SIGN LABEL HOLDER A4 LAMINATED (for laminated special load signs)

LOAD SIGN

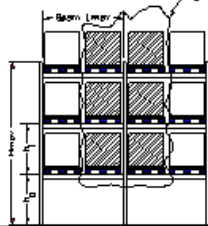


Pallet Racking P90

Beam type : I-profile		Frame type : H
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Loading capacity pr. beam level		
Item No.	Beam Type :	Loading capacity Uniformly distributed load pr. pair of beam
574011	Beam I100/15x1850 mm	2729 kg/level
574012	Beam I100/15x2300 mm	2278 kg/level
574023	Beam I125/15x2750 mm	2555 kg/level
574034	Beam I125/20x2750 mm	3242 kg/level
574042	Beam I140/22x3400 mm	3310 kg/level

Loading capacity pr. frame [kg] Frame depth : 1050 mm



The loading capacity of the frame depends on the distance from floor to the first beam level, the distance between the other beam levels and the beam profile.

For further technical information:
see P90 User's manual

When changing the rack configuration
please contact your Constructor supplier.

Beam elevation H0/H1 [mm]	I100/15	I125/15	I125/20	I140/22
1000	12505	12553	13112	12934
1250	10502	10855	11003	10862
1500	9525	9845	10100	9955
1750	8541	8908	9158	8912
2000	7572	8045	8168	8185

Delivery date :	Supplier :
Order No. :	

Item No. 019580

Load signs printed in 4 colours on plastic coated water proof paper in A4 format.

Prod. code Description

English:

015540 LOAD SIGN M-FRAME / I-BEAM
015560 LOAD SIGN M-FRAME / BOX-BEAM
015580 LOAD SIGN H-FRAME / I-BEAM
015600 LOAD SIGN H-FRAME / BOX-BEAM

Norwegian:

015541 LOAD SIGN M-FRAME / I-BEAM
015561 LOAD SIGN M-FRAME / BOX-BEAM
015581 LOAD SIGN H-FRAME / I-BEAM
015601 LOAD SIGN H-FRAME / BOX-BEAM

Swedish:

015542 LOAD SIGN M-FRAME / I-BEAM
015562 LOAD SIGN M-FRAME / BOX-BEAM
015582 LOAD SIGN H-FRAME / I-BEAM
015602 LOAD SIGN H-FRAME / BOX-BEAM

Danish:

015544 LOAD SIGN M-FRAME / I-BEAM
015564 LOAD SIGN M-FRAME / BOX-BEAM
015584 LOAD SIGN H-FRAME / I-BEAM
015604 LOAD SIGN H-FRAME / BOX-BEAM

Floor fixing - Guidelines

All pallet racking should be fixed to the floor.
The rules for fixing are depending on the relation between the height of the racking compared to depth of the frames :

Single racks : All foot plates should be fixed to the floor with at least one expander bolt. (recommended number and dimension of bolts are described for each type of foot plates)

For height / depth ratio > 6 all foot plates should be fixed with two expander bolts.

For height / depth ratio > 10 the frames should be supported against a wall or by upper portals to the double racks.

Double racks : For frame heights / frame depths ratio ≤ 6 all outer foot plates should be fixed with at least one expander bolt.

For frame heights / frame depths ratio > 6 all foot plates should be fixed with at least one expander bolt.

See also guidelines for spacers. If these guidelines are not fulfilled , the double racks has to be fixed as single racks.

Levelling - Guidelines

All foot plates / uprights should be levelled so that the deviation due to the plumb line do not exceed $\text{height}/350$.

Floor

P90 pallet racking is designed to be erected on concrete floor only !
The quality of the concrete should be min. 16/20 according to Eurocode2.