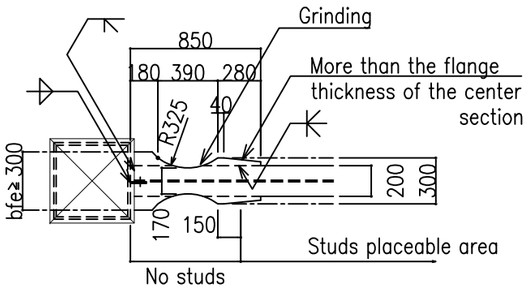
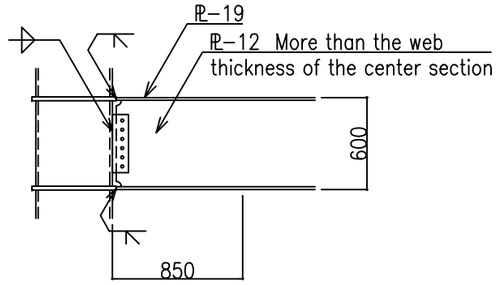
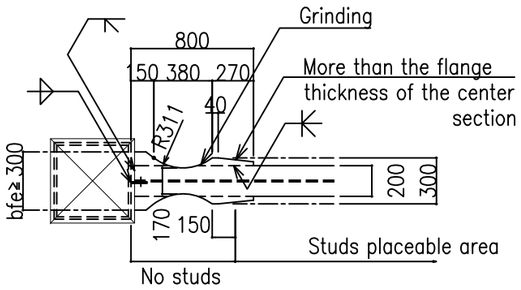
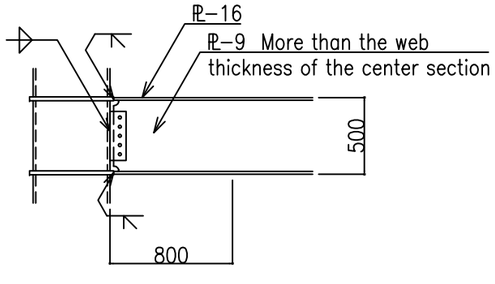
H-type



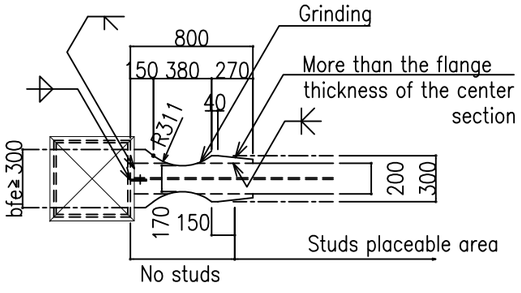


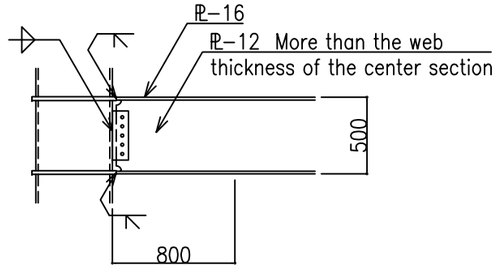
BH-600x200x12x19



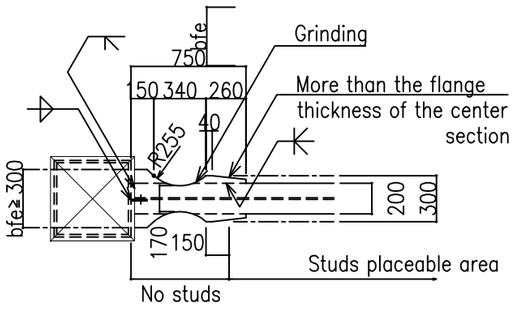


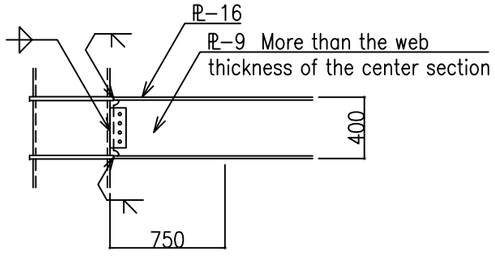
BH-450x200x9x16





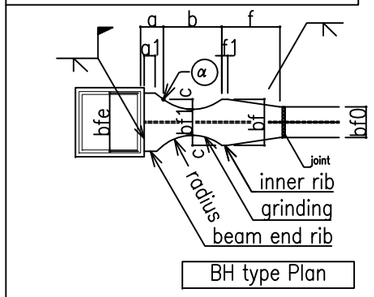
BH-500x200x12x16



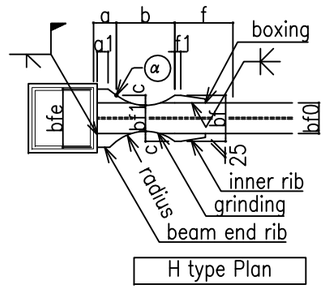


BH-400x200x9x16

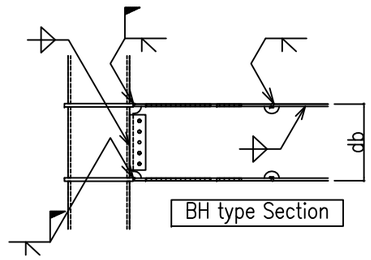
Construction standards



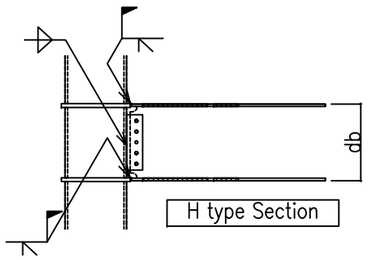
BH type Plan



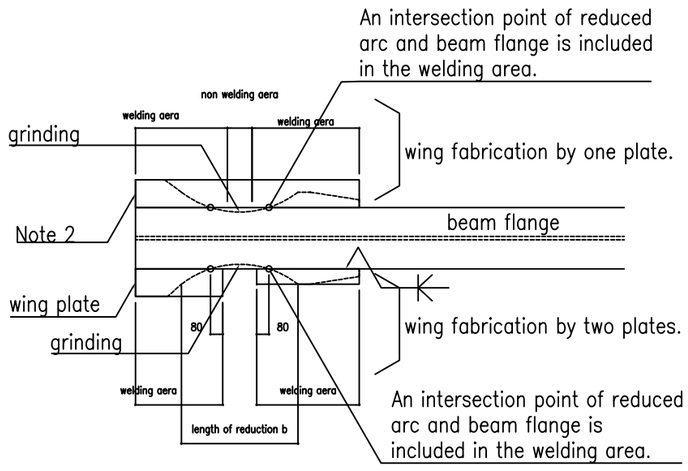
H type Plan



BH type Section



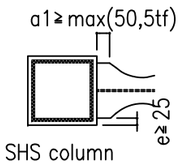
H type Section



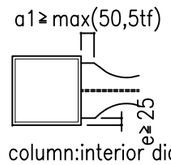
Flange reduction fabrication

Note 1)fabricate either one or two plates method.
Note 2)When using a backing bar, align the lower flange surface and the lower one for the horizontal rib at the beam end.
The surrounding reinforcement should have a smooth finish to eliminate gaps. tf+3≥ trib≥ tf
Note 3) If flange thickness is less than 16mm, consider weld performance

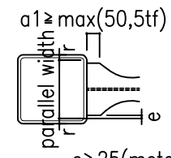
Parameters & Details	Limitations
Beam symmetry	Wing and reduction shape should be symmetric.
Width-thickness ratio of beam	FA rank. Evaluate it using the center flange width bf0 even withthe reduced section.
Lateral stiffening of the beam	"Lateral stiffening ensuring horizontal load carrying capacity". Evaluate using Af1 and iy at thereduction length. Gusset plates of stiffening member should not be welded, within the range a+b from the beam end.
Minimum span- to-depth ratio	[span/depth] 5
Centre flange width	Centre flange width: : bf0≤ 300
Flange thickness tf	40mm maximum
Eccentric connection to column	Flange width at face bfe is within the column width.
Floor rigidity	Concrete slab or a metal deck and concrete slab or horizontal bracing should be used.
Welded studs of composite slab	Welded studs should not be placed in the area of the beam flange between the column face and 6 inches beyond the extreme end of the ERBS(a+b+15cm).
Supplementary information about the shape	・Point α provides length a and b. ・When flange width of the face is increased by more than bf , extend it nearly in the tangential direction from the point α. Flange width at face bfe is more than bf.



SHS column

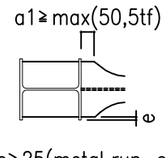


Built-up column:interior diaphragm



e≥ 25(metal run-off tab)
e≥ 10(ceramic run-off tab)

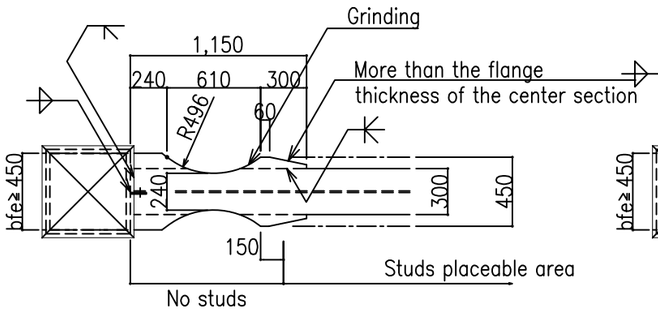
Square tube column:interior diaphragm

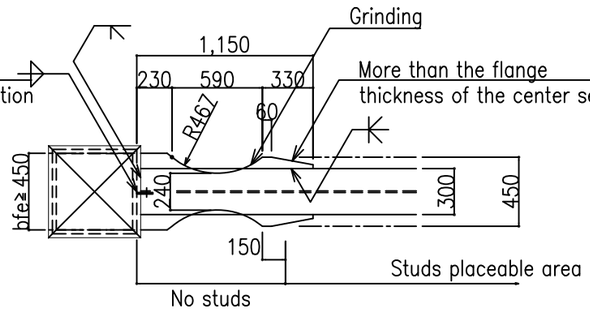


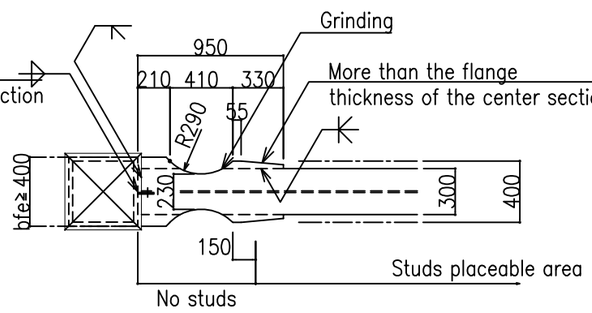
e≥ 25(metal run-off tab)
e≥ 10(ceramic run-off tab)

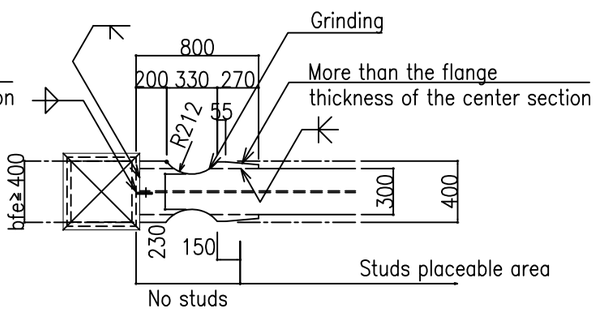
Wide flange column

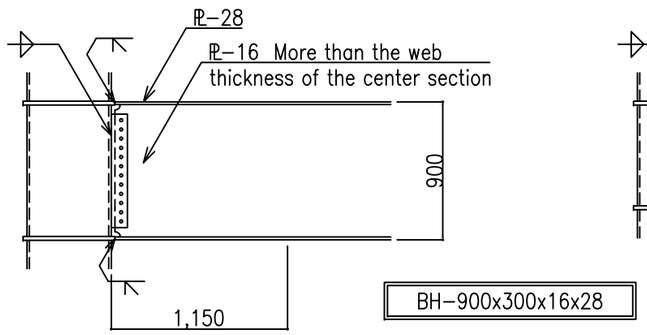
H-type

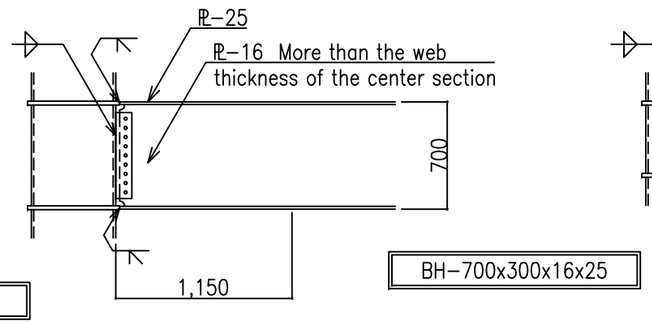

1,150
240 610 300
R496
60
Grinding
More than the flange
thickness of the center section
bfe≥450
240
300
450
150
Studs placeable area
No studs

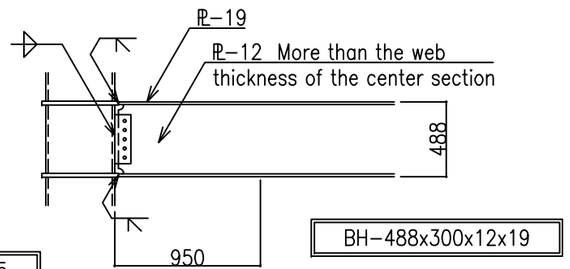

1,150
230 590 330
R467
60
Grinding
More than the flange
thickness of the center section
bfe≥450
240
300
450
150
Studs placeable area
No studs

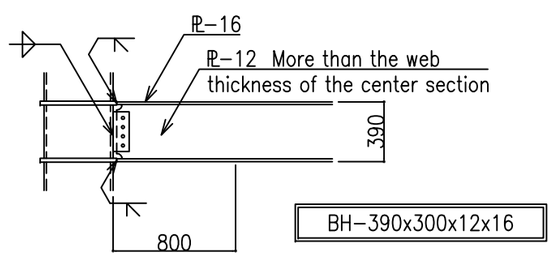

950
210 410 330
R290
55
Grinding
More than the flange
thickness of the center section
bfe≥400
230
300
400
150
Studs placeable area
No studs

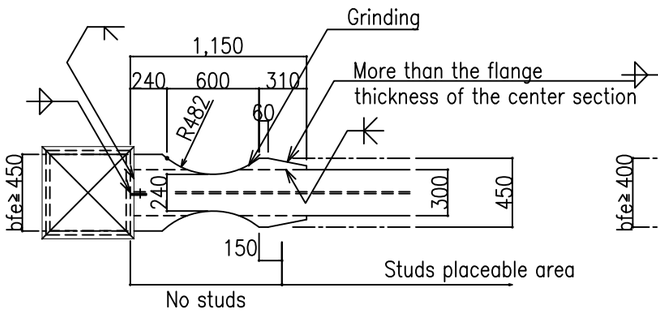

800
200 330 270
R212
55
Grinding
More than the flange
thickness of the center section
bfe≥400
230
300
400
150
Studs placeable area
No studs

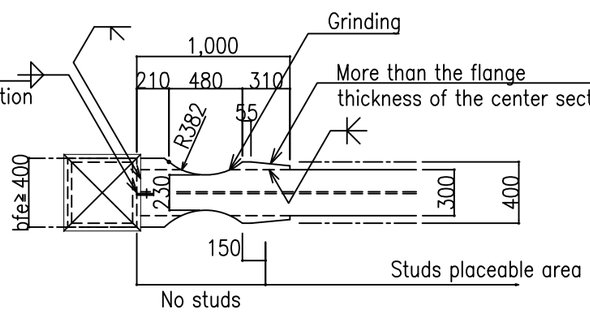

PL-28
PL-16 More than the web
thickness of the center section
900
1,150
BH-900x300x16x28

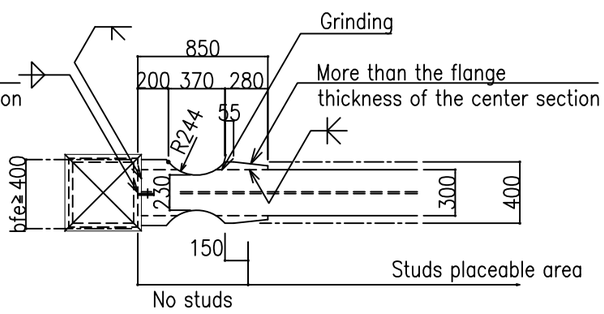

PL-25
PL-16 More than the web
thickness of the center section
700
1,150
BH-700x300x16x25

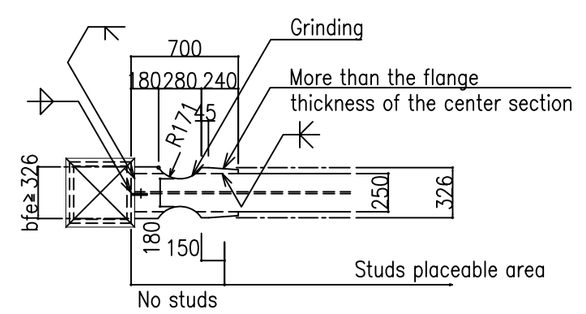

PL-19
PL-12 More than the web
thickness of the center section
488
950
BH-488x300x12x19

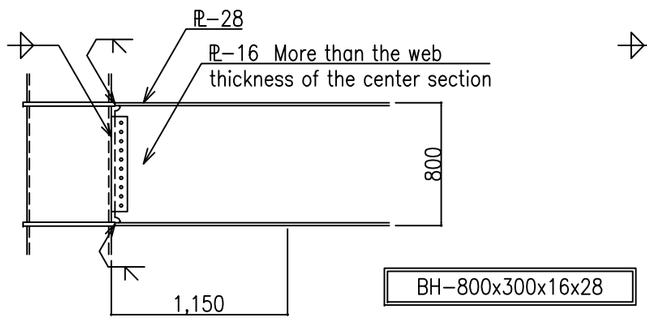

PL-16
PL-12 More than the web
thickness of the center section
390
800
BH-390x300x12x16

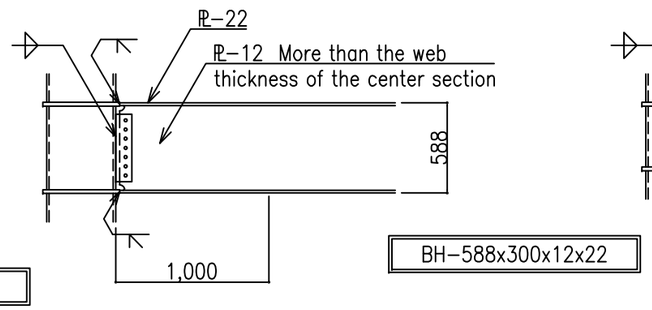

1,150
240 600 310
R482
60
Grinding
More than the flange
thickness of the center section
bfe≥450
240
300
450
150
Studs placeable area
No studs

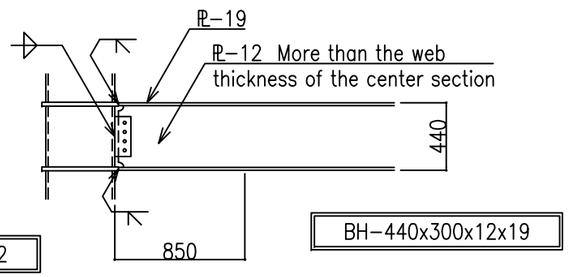

1,000
210 480 310
R382
55
Grinding
More than the flange
thickness of the center section
bfe≥400
230
300
400
150
Studs placeable area
No studs

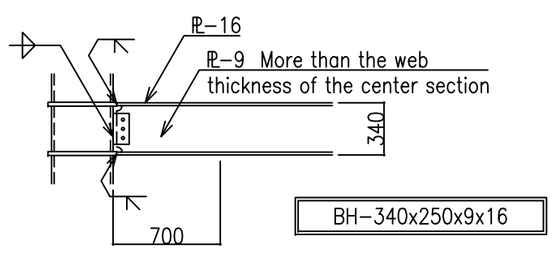

850
200 370 280
R244
55
Grinding
More than the flange
thickness of the center section
bfe≥400
230
300
400
150
Studs placeable area
No studs


700
180 280 240
R171
45
Grinding
More than the flange
thickness of the center section
bfe≥326
180
250
326
150
Studs placeable area
No studs

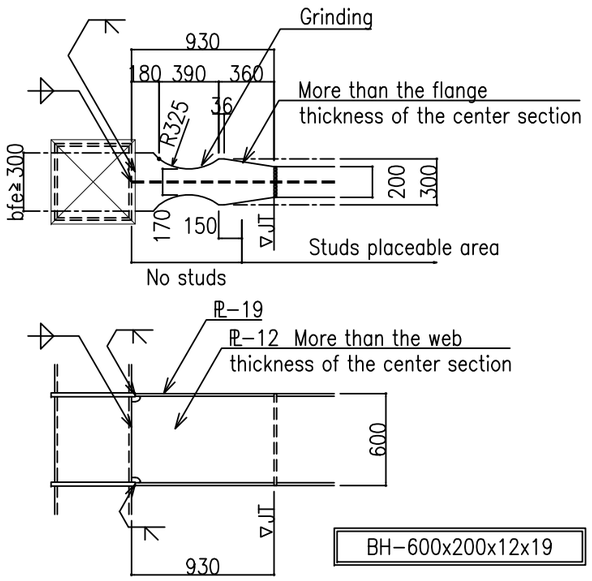

PL-28
PL-16 More than the web
thickness of the center section
800
1,150
BH-800x300x16x28

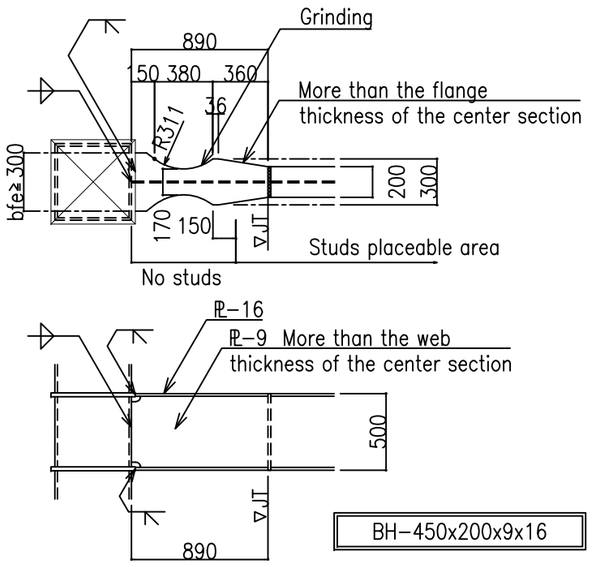

PL-22
PL-12 More than the web
thickness of the center section
588
1,000
BH-588x300x12x22

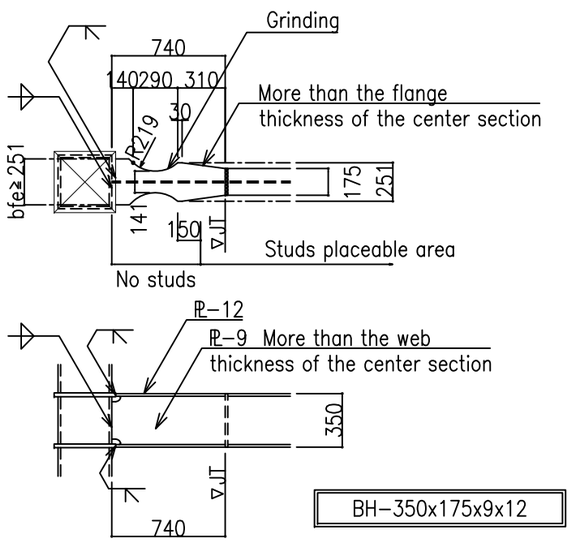

PL-19
PL-12 More than the web
thickness of the center section
440
850
BH-440x300x12x19

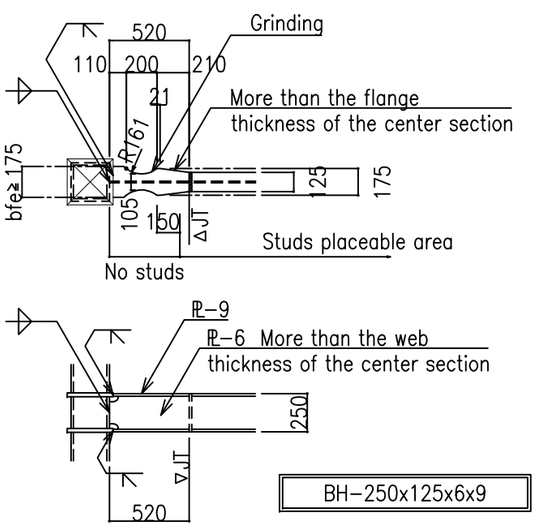

PL-16
PL-9 More than the web
thickness of the center section
340
700
BH-340x250x9x16

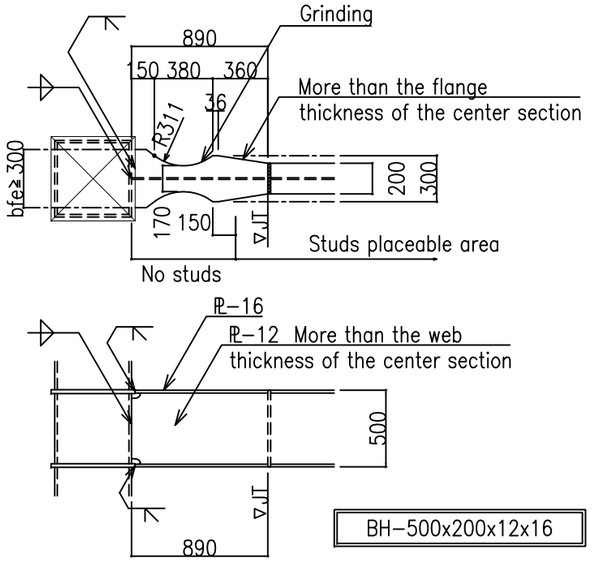
BH-type

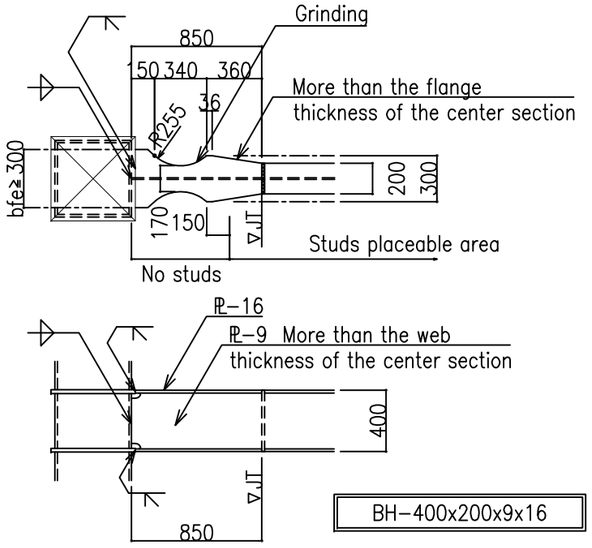

930
180 390 360
36
R325
Grinding
More than the flange
thickness of the center section
bfe≥300
200
300
170
150
▽JT
Studs placeable area
No studs
PL-19
PL-12 More than the web
thickness of the center section
600
930
BH-600x200x12x19

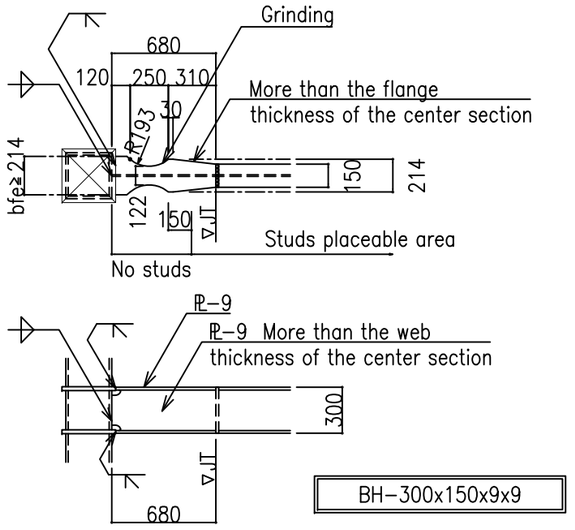

890
150 380 360
36
R311
Grinding
More than the flange
thickness of the center section
bfe≥300
200
300
170
150
▽JT
Studs placeable area
No studs
PL-16
PL-9 More than the web
thickness of the center section
500
890
BH-450x200x9x16

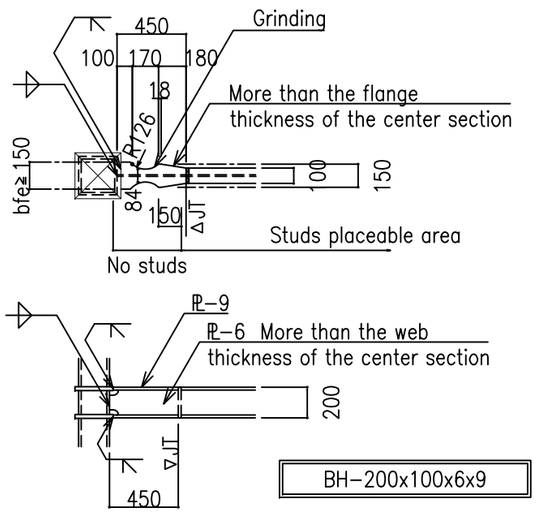

740
140 290 310
30
R279
Grinding
More than the flange
thickness of the center section
bfe≥251
175
251
141
150
▽JT
Studs placeable area
No studs
PL-12
PL-9 More than the web
thickness of the center section
350
740
BH-350x175x9x12


520
110 200 210
21
R161
Grinding
More than the flange
thickness of the center section
bfe≥175
125
175
105
150
ΔJT
Studs placeable area
No studs
PL-9
PL-6 More than the web
thickness of the center section
250
520
BH-250x125x6x9

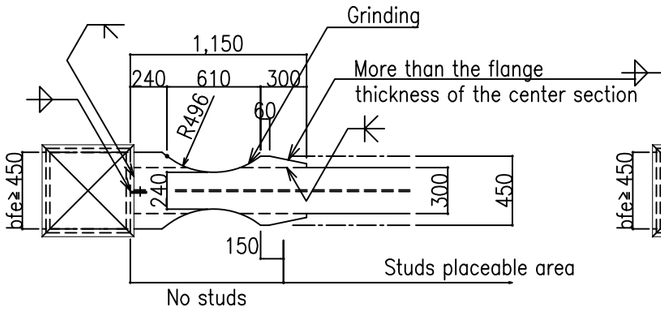

890
150 380 360
36
R311
Grinding
More than the flange
thickness of the center section
bfe≥300
200
300
170
150
▽JT
Studs placeable area
No studs
PL-16
PL-12 More than the web
thickness of the center section
500
890
BH-500x200x12x16

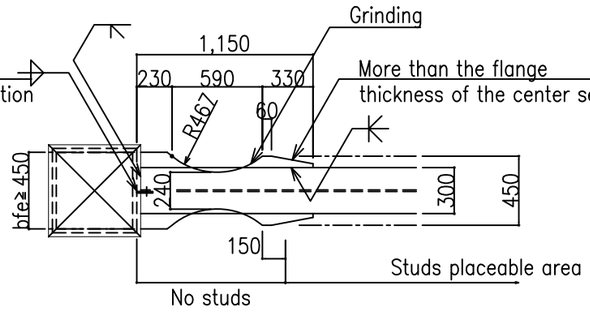

850
150 340 360
36
R255
Grinding
More than the flange
thickness of the center section
bfe≥300
200
300
170
150
▽JT
Studs placeable area
No studs
PL-16
PL-9 More than the web
thickness of the center section
400
850
BH-400x200x9x16

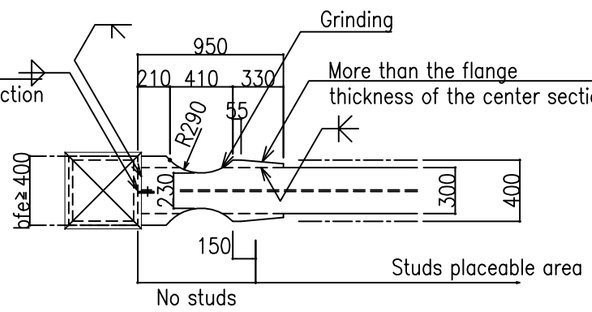

680
120 250 310
30
R193
Grinding
More than the flange
thickness of the center section
bfe≥214
150
214
122
150
▽JT
Studs placeable area
No studs
PL-9
PL-9 More than the web
thickness of the center section
300
680
BH-300x150x9x9

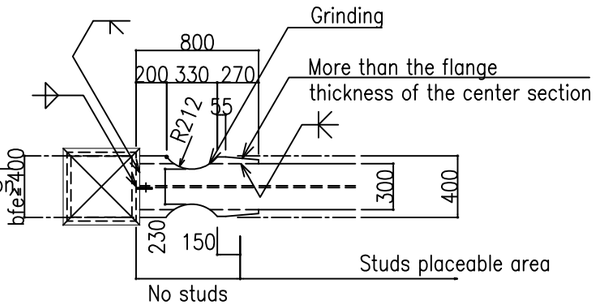

450
100 170 180
18
R126
Grinding
More than the flange
thickness of the center section
bfe≥150
100
150
84
150
ΔJT
Studs placeable area
No studs
PL-9
PL-6 More than the web
thickness of the center section
200
450
BH-200x100x6x9

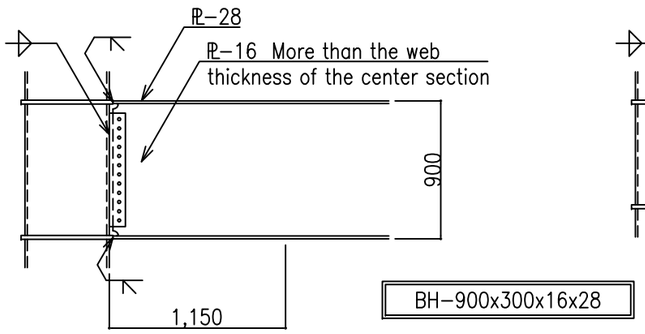
H-type











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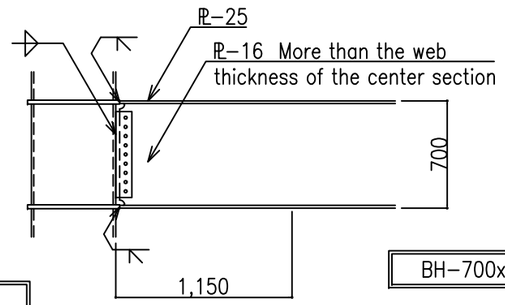

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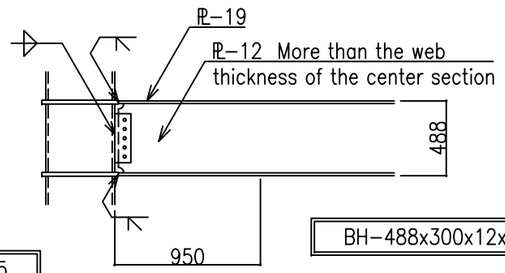

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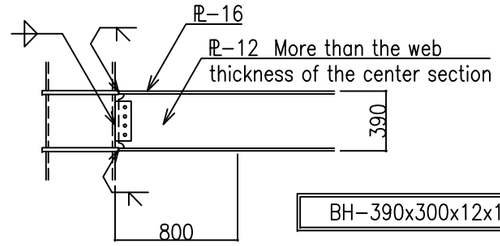

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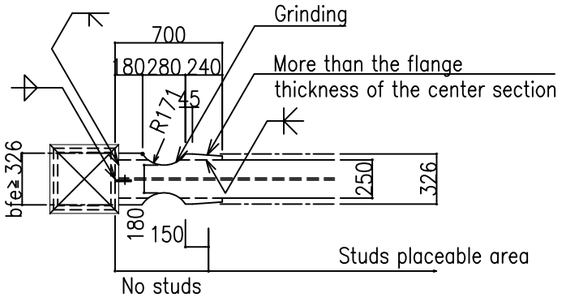

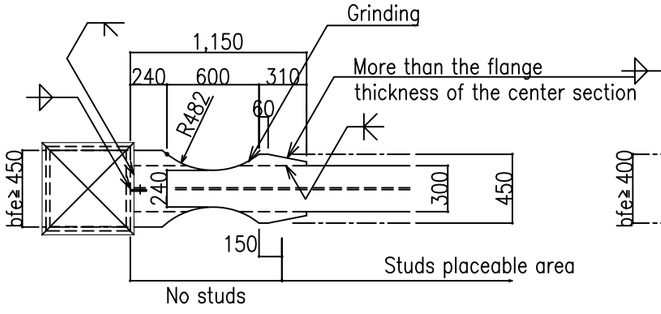

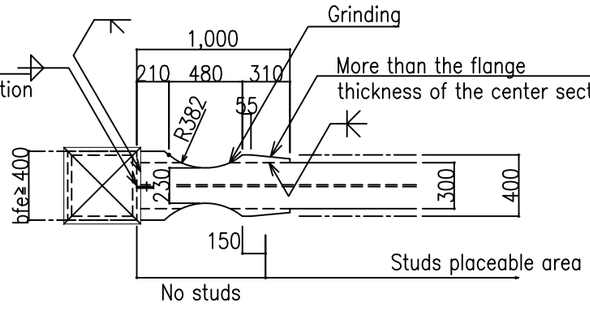

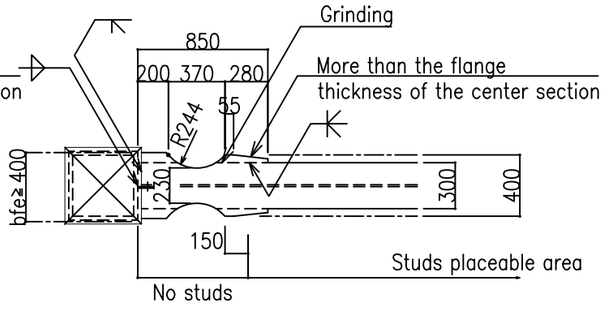

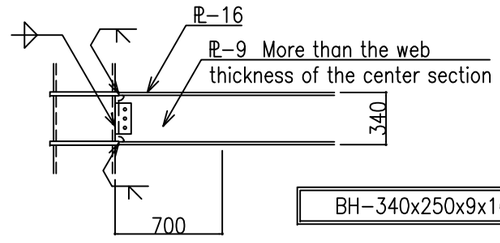

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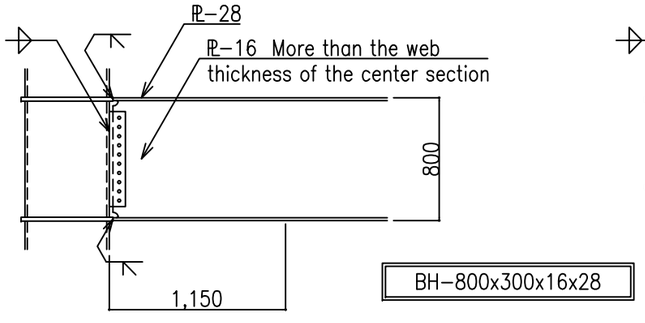

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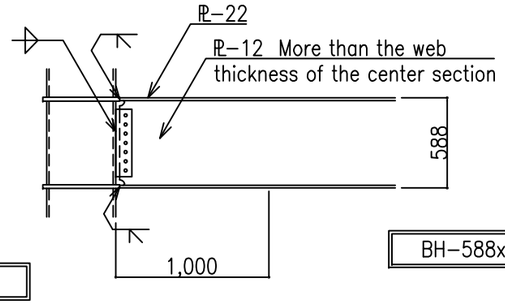

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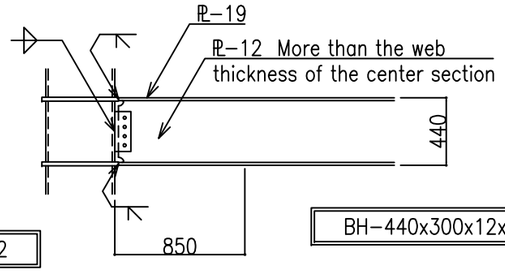

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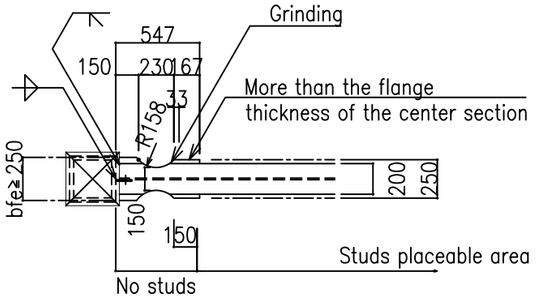

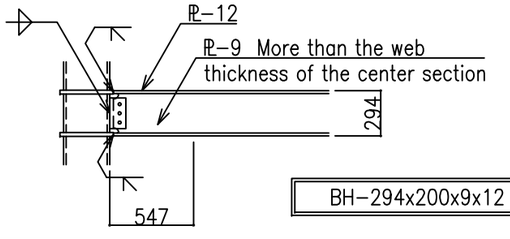

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