

Wrench Hole in Specified Position

Blind Joints which require this alteration

Screw Joints P.662 Single Joints P.669 Tapping Joints P.661

Adds drilled holes for Blind Joint (mainly for beams) connections at specified locations.

Horizontal AH, BH, CH, DH, EH

Vertical AV, BV, CV, DV, EV

Crisscross (Horizontal + Vertical)
AP, BP, CP, DP, EP

Cross Section View

$\varnothing d$

Alteration Code Specification Method

Alteration Code specified in 0.5mm increments (from Left End)	Extrusion Series	$\varnothing d$
AH, BH, CH, DH, EH (Horizontal)	5 Series	7.35
AV, BV, CV, DV, EV (Vertical)	6 Series	5.8
AP, BP, CP, DP, EP (Crisscross)	8 Series	8
	8-45 Series	8

Wrench Hole \varnothing dim. can be selected for Extrusion Series 6. Specify with X5 or X8.

For additional descriptions on various options, see Alteration Overview (P.679).

Up to 5 locations in Vertical, Horizontal, and Crisscross directions can be specified.

Alteration Code Example

Horizontal			Vertical			Crisscross		
AH (1 Location Horizontal)	AH BH (2 Locations Horizontal)	AH BH CH (3 Locations Horizontal)	AV (1 Location Vertical)	AV BV (2 Locations Vertical)	AV BV CV (3 Locations Vertical)	AP (1 Location Crisscross)	AP BP (2 Locations Crisscross)	AP BP CP (3 Locations Crisscross)

Ordering Example **Part Number**
HFS6-3030-300-X8-AH30-BH280
HFS8-4040-300-AH30-BH280-AV100-BV280

Days to Ship **Configure Online**

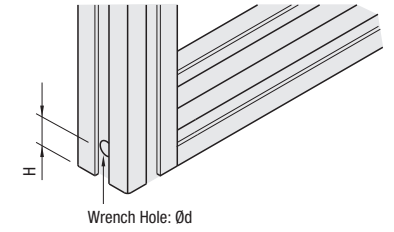
See the table below for the applicable extrusions and alteration charges. Indicated with "-" in the table are not applicable.

Alterations				Wrench Hole in Specified Position			
Feature	Type	No.	Page	Wrench Access Hole Dia.	Horizontally	Vertically	Crisscross
					AH-EH	AV-EV	AP-EP
4-Side Slots	HFS5 NFS5 CAF5 HFSY5	2020	P511	7.35			
		2040	P512				
		2060	P513				
		2080	P513				
		2525	P513				
		2550	P513				
		4040	P512				
		4060	P513				
		4080	P513				
		404020	P514				
3-Side Slot 1 Flat	HFSF5 NFSF5	2020	P511				
		2040	P512				
2-Side Slots 2 Flats	HFST5 NFSF5	2020	P511				
		4040	P512				
2 Slots on Opposite Sides 1-Side Slot 3 Flats	HFST5 HFSF5	2020	P511				
		2020	P511				
Angled	HFS30A5 HFS45A5 HFS60A5	20	P514				
		2020	P511				
Black Anodize	HFSB5 NFSB5	2040	P512				
		2525	P513				
		2550	P513				
		4040	P512				
Curved	HFSTB5 HFSTB5	2020	P511				
		2020	P511				

Alterations	Code			Wrench Hole in Specified Position				
	Feature	Type	No.	Page	Wrench Access Hole Dia.	Horizontally	Vertically	Crisscross
						AH-EH	AV-EV	AP-EP
4-Side Slots	HFS6 GFS6 EFS6 NFS6 CAF6 HFSY6	3030	P545	05	08			
		3060	P547					
		3090	P550					
		30120	P550					
		5050	P553					
		60100	P553					
		100100	P553					
		6060	P549					
		6090	P551					
		60120	P551					
		606030	P552					
		3030	P550					
		3060	P546					
		5050	P548					
		6060	P549					
3-Side Slot 1-Side Flat	HFSF6 EFSF6 NFSF6	3030	P546					
		3060	P548					
		5050	P553					
2-Side Slots 2 Flats	HFST6 EFSF6 NFSF6	3030	P546					
		3060	P548					
		5050	P553					
2 Slots on Opposite Sides	HFSH6 EFSH6	3030	P546					
		3060	P548					
1-Side Slot 3 Flats	HFSC6 EFSC6	3030	P546					
		3060	P548					
Light Type	HFSL6 NFSL6	3060	P547					
		5050	P553					
Heavy Type	HFS30A6 HFS45A6 HFS60A6	30	P552					
		30	P552					
Angled	HFS45A6 NFS45A6 HFS60A6 HFSB6 EFSB6 NFSB6 NFSB6 HFSFB6 EFSTB6	3030	P546					
		3060	P547					
		5050	P553					
		6060	P549					
		3030	P546					
		3030	P546					
Black Anodize	HFSTB6 EFSTB6 HFSLB6	3030	P546					
		3060	P547					
		3030	P546					
Curved	HFSR6 NFSR6	3030	P545					
		606030	P552					
4-Side Slots	HFS8 GFS8 EFS8 NFS8 CAF8 HFSY8	4040	P587	08	08			
		4080	P589					
		40120	P592					
		40160	P592					
		8080	P591					
		80160	P592					
		808040	P594					
		8080	P591					
		4040	P588					
		4080	P590					
3-Side Slot 1-Side Flat	HFSH8 GFSH8 EFSH8 NFSH8	4040	P588					
		4080	P590					
		8080	P591					
2-Side Slots 2 Flats	HFST8 EFSH8 NFSH8	4040	P588					
		4080	P590					
2 Slots on Opposite Sides	HFSH8 EFSH8	4040	P588					
		4080	P590					
1-Side Slot 3 Flats	HFSC8 EFSC8	4040	P588					
		4080	P590					
Light Type	HFSL8 NFSL8	4040	P587					
		4080	P589					
Angled	HFS30A8 HFS45A8 HFS60A8	40	P593					
		40	P593					
		40	P593					
Black Anodize	HFSB8 EFSB8 NFSB8 HFSFB8 EFSTB8 HFSLB8	4040	P588					
		4080	P589					
		8080	P591					
		80160	P592					
		4040	P588					
		4040	P588					
Curved	HFSR8 NFSR8	4080	P589					
		808040	P594					
4-Side Slots	HFS8 GFS8 EFS8 NFS8 CAF8	4545	P625	08	08			
		4590	P628					
		45180	P629					
		5050	P631					
		60100	P632					
		6060	P633					
		9090	P629					
		90180	P629					
		909045	P630					
		100100	P632					
		100200	P632					
		4545	P626					
		4590	P628					
		5050	P631					
6060	P633							
3-Side Slot 1-Side Flat	HFSF8 GFSF8 EFSF8 NFSF8	4590	P628					
		5050	P631					
		6060	P633					
		4545	P627					
		5050	P631					
2-Side Slots 2 Flats	HFST8 EFSF8 NFSF8 GFSF8	4545	P627					
		5050	P631					
		6060	P633					
2 Slots on Opposite Sides	HFSH8 EFSH8	4545	P627					
		4545	P627					
1-Side Slot 3 Flats	HFSC8 EFSC8	4545	P627					
		4545	P627					
Light Type	HFSL8 NFSL8	4545	P625					
		4590	P628					
		4545	P626					
		4545	P627					
Angled	HFS30A8 HFS45A8 HFS60A8	45	P630					
		45	P630					
		45	P630					
Black Anodize	HFSB8 EFSB8 HFSFB8 EFSTB8 HFSLB8	4545	P625					
		4590	P628					
		45180	P629					
		5050	P631					
		60100	P632					
		9090	P629					
		90180	P629					
		4545	P626					
		4545	P627					
		4545	P630					
Curved	HFSR8 NFSR8	4545	P630					
		909045	P630					

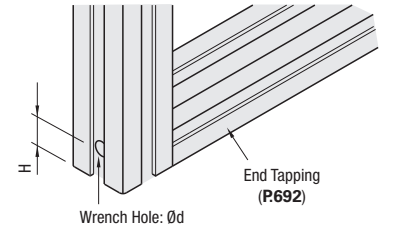
Alterations Needed for Various Joints

Tapping Joint Drilling



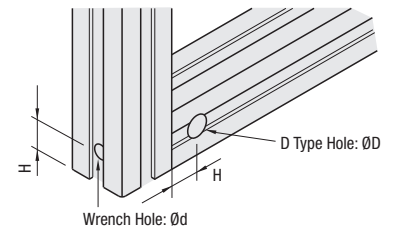
P.661 A wrench access hole is needed for a Tapping Joint.

Screw Joint Drilling



P.662 For a Screw Joint, a wrench access hole on one extrusion, and a hole tapping (P.692) on the other extrusion are needed.

Single Joint Drilling

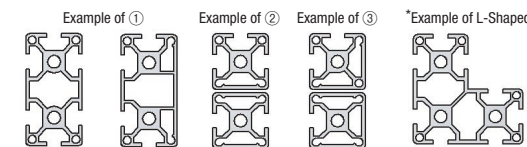


P.669 For a Single Joint, a wrench access hole on one extrusion, and a D Hole (P.688) on the other extrusion are needed.

Standard of Extrusion Position

Placing method of the extrusion, which is a basis to determine right and left is shown as follows.

- On the vertical length
- Flat side down
- One flat side down and another flat side right



When the extrusion is on the vertical length and also has a flat side, ① has the priority.

Hole(s) on Smooth Surfaces

Specifying Wrench Access Hole in the flat surface direction provides holes on the flat surface also. To maintain the smoothness of the flat surface without wrench access holes, use of Simple Joint Kits is recommended. P.667

Wrench access hole can be drilled using a jig on P.786.

