Built-up Beam with various dimensions and base materials are fabricated by WEST COAST ENGI-NEERING (WCE). We are able to customize to various customer's design and processing need.

We fabricate customized dimensions upon customer's requirement and raw material available in the market. Our product range covers a variety of the most popular dimensions and lengths of

Our products are made from modern CNC plasma cutting machine, assembly and welding machine from Japan operated by certified welders (JIS Z3841), production process management and quality assurance system comply with JSA .M-

We manufacture Built-up Beam by Submerge Arc Welding (SAW) with automatic electrode wire feeder and automatic positioning control as well as welding bead measurement (AWS D.1.1) ensuring that the size and position of the welding

Built-up Beam

- High Quality & Safety
- Flexibility in Design
- Cost-Effective

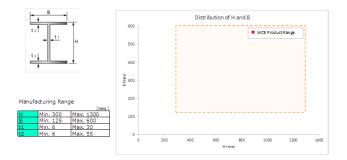
- Customized dimensions meeting various design needs
- High dimensional accuracy
- Reliable Weld Quality



Product Specification

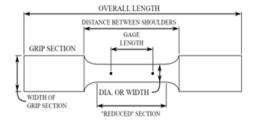
 Raw Material: TIS, JIS, ASTM, AISI, ASME, API, BS, EN, DIN, AS, NZS Carbon Steel Strip, Plate or other Raw Material standard upon customer's requirement.

2. ProductVRattige:	125-600 mm		
Web Height (BH)	300-1,300 mm		
Web Height (BT)	100-1,300 mm		
Flange Thickness	6-55 mm		
Web Thickness	6-30 mm		
Length	2,000 – 18,000 mm.		



3. Quality of Weld

The quality of weld between web and flange is a critical element of the Built-up Beam. WCE Built-up Beam are made by welding at the optimum welding conditions. The fabrication procedure shall be submitted and mutually agreed with the customer prior to the production. The Tensile Strength Test and Macro and Micro Structure result ensuring the quality of weld by 3rd party shall be provided upon the customer's requirement.



Macro and Micro Structure

Macroscopic test with dilute nitric acid is performed to confirm the weld of web and flange structural fusion.



4. Tolerance of shape and dimensions:

Macroscopic test with dilute nitric acid is performed to confirm the weld of web and flange structural fusion.

				Tolerance									
Item		Range		JIS G 3136		Remarks							
		B≤	400		2.0								
Width (B)		400 < B		± 2.0									
Depth (H)		H < 800 B ≤ 400 400 < B		± 2.0		4							
				± 3.0									
		800 ≤ H		± 3.0									
	Flange (t ₂)	6 ≤ t ₂ < 16		+ 1.7 - 0.3 ± 1.0		t2							
		6 ≤ t ₂ < 25		+ 2.3 - 0.7	± 1.5	H 11 H 2							
		25 ≤ t ₂ < 40			± 1.7								
Thickness			≤ t ₂	+ 2.5 - 1.5	± 2.0	1							
		t ₁ < 16		± 0.7									
	Web (t ₁)	16 ≤ t ₁ < 25		± 1.0									
			11<40		1.5								
			≤ t ₁		2.0								
		L ≤ 7	7000	± 40.0 - 0									
Length (L)		7000 < L		+ tolerance increases 5 mm for									
				the increment of every 1 m. or fraction thereof									
Flange Out-of Squareness (T)		H ≤ 300		≤ 0.01 B The minimum tolerance shall be 1.5 mm.									
							300 < H		≤ 0.012 B				
		The minimum tolerance shall be											
		1.5 mm.											
		Bend (t)											
B ≤ 400				0.15% of b and ≤ 1.5									
Web-of-Center (S)		B ≤ 400		± 2.0									
						b ₁ b ₂							
		400 < B		± 3.5									
						S = \frac{b_1 \cdot b_2}{2}							
Ends Out-of-S quare (e)		-		≤ 0.016 H or ≤ 0.016 B The minimum tolerance shall be 3.0 mm.		H B							
							Camber of Web (δ)		H <	350	3.0 mm. ≤2		Ē
											× ,		
350 < H < 550		≤2.5											
550	≤ H	≤3											

Factory:



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