



		9				10					
BILL OF MATERIAL FOR 1 HORIZONTAL MANHOLE (Left) 24", For the Order, 2x 8.0.M are required											
Item	Designation	Dimension (mm)				Material	Weight kg	Qty	Total Weight (kg)	Specification	
		Length	Width	Thk	O.D.						I.D.
1	Pipe 24" Sch. STD	290		9.52	609.6	590.56	P 265 GH	40.9	1	40.9	
2	Flange 24" 150 Slip On RF						P 265 GH	95.0	1	95.0	ASME B16.5
3	Flange 24" #150 Blind RF						P 265 GH	186.0	1	186.0	ASME B16.5
4	Gasket 24" #150			3	692	616	Kingslee's CA324		1		
5	Screw (DIN 933)			M30x150			Class 8.8	0.97	20	19.4	Galvanized
6	Nut (DIN 934)			M30			Class 8	0.22	20	4.5	Galvanized
7	Washer (DIN 125 A)			M30			Mild Steel	0.06	40	2.0	Galvanized
8	Handle Dia. 16	260				16	P 265 GH	0.4	2	0.8	
9	Bracket Plate on Pipe	660	100	12			P 265 GH	5.8	1	5.8	
10	Bracket Plate on Blind Flange	300	76	10			P 265 GH	0.5	2	1.0	
11	Support Bracket	1169				50	P 265 GH	17.4	1	17.4	
12	Washer for Support Bracket				10	76	52	P 265 GH	0.2	1	0.2
13	Split Pin Øx4x71						P 265 GH	0.0	1	0.0	Galvanized
14	Eye Bolt (DIN 933)			M20x290			Class 8.8	0.7	1	0.7	Galvanized
15	Screw (DIN 933)			M20x90			Class 8.8	0.3	1	0.3	Galvanized
16	Washer (DIN 125 A)			M20			Mild Steel	0.0	3	0.1	Galvanized
17	Nut (DIN 934)			M20			Class 8	0.1	4	0.3	Galvanized
Total weight for 1 Set HORIZONTAL MANHOLE (kg)									374.4	net weight	
Total weight for 2 Set HORIZONTAL MANHOLE (kg)									748.8	net weight	

**NOTES :**

1. For weldings & chamfers typical details, refer to welding details standard drawing. Level of welding imperfections according to EN ISO 5817 Class B and ASME VIII-1.  
For site welds, chamfers shall also be done in workshop.
2. Tolerances on dimensions according to EN ISO 13920 Class AE and ASME VIII-1.
3. For detail drawing, total of partial dimensions may be different by 1mm to the overall length, due to rounded dimensioning by the computer.
4. Coating: Supplied with primer coat, final coating on site by others.  
See specification C1529257-206\_31000-REQ Last rev.
5. Transportation lugs and transport accessories shall be designed and foreseen by the duct manufacturer. Lifting lugs to be added by erection company.
6. To be supplied in parts suitable for Transportation. Splicing and Re-Assembly pads to be validated by Buyer before manufacturing.

**REFERENCE DRAWINGS LIST :**

=> C1529257-206\_00001-DWG - ACC GENERAL ARRANGEMENT Last rev.  
Client number : KAZ 30 HAMPD DGA 001 Last rev.

=> C1529257-206\_31000E-DWG-WELDING DETAILS STANDARD Last rev.  
Client number : KAZ 30 HAMPL DGE 178.

=> C1529257-206\_31100-DWG - Boiler work-Steam Duct General layout Last rev.  
Client number : KAZ 30 HAM DPA 041 Last rev.

=> C1529257-206\_33101-DWG - Condensate Tank Drawing Last rev.  
Client number : KAZ 30 HAM DPA 086 Last rev.

ALL PARTS HAVE TO BE WELDED,  
EXCEPT OTHERWISE NOTED.

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TYPICAL WELDING FOR PRESSURE PARTS  
WILL BE "TYP.0", TYPICAL WELDING FOR  
NON-PRESSURE PARTS WILL BE "TYP.21",  
EXCEPT OTHERWISE NOTED

DESIGN CONDITIONS :

1. Code : BS EN 13445
2. Temperature : 110°C.
3. Pressure : 0.45barg / Full Vacuum.