

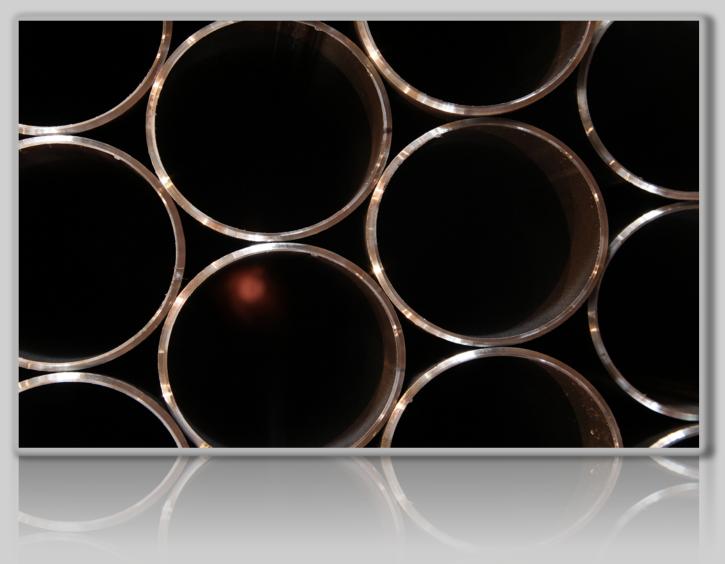


SEAMLESS PIPES



AN ISO 9001:2015 CERTIFIED COMPANY





W.E.C (Leeds) Ltd, established in the UK in 1997, is today a leading name in the Manufacture and Distribution of specialised hoses for the Oil and Petrochemical industry.

Recognising the opportunity in the piping industry W.E.C (Leeds) ramped up manufacturing to become a major PFV (Pipes, Fittings & Valves), branded as Rhinofitt. Today Rhinofitt is the preferred vendor across UK and Europe for enterprise level projects.

Upping the ante in the international market, based on our success in Europe, we are now one of the leading brands worldwide. Rhinofitt is known for offering a good quality product at competitive prices whilst maintaining a high standard of service and technical knowhow, supported by our wide network of distributors.

W.E.C (Leeds) recognises the need to offer the highest standards of customer service and this has always been a fundamental rule in our business model as well as our success both for existing and potential new clients.

Within the Rhinofitt range we provide all types of Seamless Pipes manufactured to cater various industries complying the ever growing demand in quality and service.

Product Range

Size: 1/2" to 24"

Wall Thickness:

Length: 6 to 12 meters

Specification: ASTM A106 / A106M Gr. B

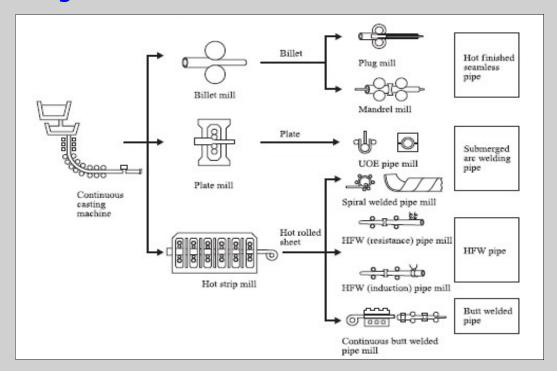
Dimensions: ANSI/ASME B36.10M

Applications: Producing Structures, as well as for Steam, Water, Gas and Air Pipelines for Operations at Low Temperatures and also in general machine

building and tool making.



Manufacturing Processes



The small diameter seamless pipe using the piercing/mandrel mill process and the medium diameter seamless pipe using piercing/plug mill process. The small diameter mill produces pipes and tubes with outer diameter up to 177.8mm (5"), while the medium diameter mill produces products with outer diameters from 177.8mm (5"0 to 426.0mm (16").

Among materials for Seamless Pipes and Tubes, Carbon Steel and Low Alloy Steel are melted and rolled. High alloy materials such as 13% Cr, etc. are melted and cast into slabs, billet rolling is then performed and the materials are supplied in billet form.

High Cr Seamless Steel Pipes used in oil country. Seamless pipes and tubes of high Cr alloy steel and stainless steel were generally produced by piercing using a hot extrusion process, followed by rolling.

These products were realized for the first time as a result of improvement in the properties of the materials by heavy processing in the slab stage, in combination with the establishment of various pipes rolling technologies, including billet temperature control during pipe rolling, optimization of piercing conditions, optimization of the pass schedule in mandrel rolling etc.

Quality is Passion

Customer satisfaction drives Rhinofitt in every aspect from production to delivery thus committed to high quality starting from selection of raw material and continues in every stage of manufacturing process. To ensure product reliability through the process, Rhinofitt has fully equipped metallurgical laboratory with all tools for comprehensive product quality testing which includes but not limited to Hydro test and Destructive testing. The constant emphasis on high quality guarantees a long, trouble-free service life to our pipes without breakdowns or degradation.



CARBON STEEL GRADE B PIPES ASTM A53M / A106 / API 5L / Seamless

			N	<i>M</i> aximu	ım Allowabl	e Operatin	ıg Pressu	ıre (Mpa	1)			
Nominal								Temp	erature (°C)		
	ize	Outside Diameter	Schedule		Wall Thickness (mm)	-29 to +38	204	260	343	371	399	427
DN	NIDE	(mm)				Maximum Allowable Stress (Mpa)						
DN	DN NPS					137.9	137.9	130.3	117.2	113.8	89.6	74.5
15	1/2"	21.3	STD	40	2.77	34.5	34.5	32.6	29.3	28.5	22.4	18.6
20	3/4"	26.7	STD	40	2.87	28.1	28.1	26.5	23.8	23.1	18.2	15.1
			XS	80	3.91	39.4	39.4	37.2	33.5	32.5	25.6	21.3
25	1"	33.4	STD	40	3.38	26.3	26.3	24.8	22.3	21.7	17.1	14.2
23			XS	80	4.55	36.3	36.3	34.3	30.9	30.0	23.6	19.6
			STD	40	3.56	21.6	21.6	20.4	18.4	17.8	14.1	11.7
32	1 1/4"	42.2	XS	80	4.85	30.2	30.2	28.5	25.6	24.9	19.6	16.3
				160	6.35	40.6	40.6	38.4	34.5	33.5	26.4	21.9
			STD	40	3.68	19.4	19.4	18.4	16.5	16.0	12.6	10.5
40	1 1/2"	48.3	XS	80	5.08	27.4	27.4	25.9	23.3	22.6	17.8	14.8
				160	7.14	39.8	39.8	37.6	33.8	32.8	25.9	21.5
			STD	40	3.91	16.4	16.4	15.5	13.9	13.5	10.7	8.9
50	2"	60.3	XS	80	5.54	23.7	23.7	22.4	20.1	19.5	15.4	12.8
				160	8.74	38.9	38.9	36.8	33.1	32.1	25.3	21.0
	2½"	73.0	STD	40	5.16	17.9	17.9	17.0	15.3	14.8	11.7	9.7
65			XS	80	7.01	24.8	24.8	23.5	21.1	20.5	16.1	13.4
				160	9.53	34.7	34.7	32.8	29.5	28.6	22.5	18.7
	3"	88.9	STD	40	5.49	15.6	15.6	14.7	13.2	12.8	10.1	8.4
80			XS	80	7.62	22.0	22.0	20.8	18.7	18.2	14.3	11.9
				160	11.13	33.1	33.1	31.3	28.1	27.3	21.5	17.9
	4"	114.3	STD	40	6.02	13.2	13.2	12.5	11.2	10.9	8.6	7.1
			XS	80	8.56	19.1	19.1	18.0	16.2	15.7	12.4	10.3
100				120	11.13	25.2	25.2	23.8	21.4	20.8	16.4	13.6
			20/6	160	13.49	31.0	31.0	29.3	26.4	25.6	20.2	16.8
			XXS	40	17.12	40.4	40.4	38.2	34.3	33.3	26.2	21.8
125	5"	141.3	STD	40 80	6.55 9.53	11.6	11.6	10.9	9.8	9.5	7.5	6.2
			XS			17.1	17.1	16.1	14.5	14.1	11.1	9.2
125				120 160	12.7	23.1	23.1	21.9	19.7 25.0	19.1 24.3	15.0 19.1	12.5 15.9
			XXS	100	15.88 19.05	35.9	35.9	33.9	30.5	29.6	23.4	19.4
			STD	40	7.11	10.5	10.5	9.9	8.9	8.7	6.8	5.7
	6"	168.3	XS	80	10.97	16.5	16.5	15.6	14.0	13.6	10.7	8.9
150			7.5	120	14.27	21.8	21.8	20.6	18.5	17.9	14.1	11.7
			XXS	160	18.26	28.3	28.3	26.8	24.1	23.4	18.4	15.3
	8"	219.1	70.5	20	6.35	7.1	7.1	6.7	6.1	5.9	4.6	3.9
				30	7.04	7.9	7.9	7.5	6.7	6.5	5.2	4.3
			STD	40	8.18	9.3	9.3	8.7	7.9	7.6	6.0	5.0
			3.5	60	10.31	11.7	11.7	11.1	10.0	9.7	7.6	6.3
			XS	80	12.7	14.6	14.6	13.8	12.4	12.0	9.5	7.9
200			7.5	100	15.09	17.5	17.5	16.5	14.8	14.4	11.4	9.4
				120	18.26	21.4	21.4	20.2	18.2	17.6	13.9	11.5
				140	20.62	24.3	24.3	23.0	20.7	20.1	15.8	13.1
			XXS	170	22.23	26.4	26.4	24.9	22.4	21.7	17.1	14.2
			^^3	160					23.3			14.8
				100	23.01	27.4	27.4	25.8	23.3	22.6	17.8	14.8



CARBON STEEL GRADE B PIPES ASTM A53M / A106 / API 5L / Seamless

Maximum Allowable Operating Pressure (Mpa)														
Nominal					Wall Thickness	Temperature (°C)								
Size		Outside Diameter	Schedule			-29 to +38	204	260	343	371	399	427		
DN NPS	NIDC	(mm)			(mm)	Maximum Allowable Stress (Mpa)								
					137.9	137.9	130.3	117.2	113.8	89.6	74.5			
				20	6.35	5.7	5.7	5.4	4.8	4.7	3.7	3.1		
250	10"			30	7.8	7.0	7.0	6.6	6.0	5.8	4.6	3.8		
			STD	40	9.27	8.4	8.4	7.9	7.1	6.9	5.5	4.5		
			XS	60	12.7	11.6	11.6	11.0	9.9	9.6	7.5	6.3		
		273.1		80	15.09	13.9	13.9	13.1	11.8	11.4	9.0	7.5		
				100	18.26	16.9	16.9	16.0	14.4	14.0	11.0	9.1		
				120	21.44	20.0	20.0	18.9	17.0	16.5	13.0	10.8		
			XXS	140	25.4	24.0	24.0	22.7	20.4	19.8	15.6	13.0		
				160	28.58	27.3	27.3	25.8	23.2	22.5	17.7	14.7		
300				20	6.35	4.8	4.8	4.5	4.1	4.0	3.1	2.6		
	12"	323.9		30	8.38	6.4	6.4	6.0	5.4	5.2	4.1	3.4		
			STD		9.53	7.2	7.2	6.9	6.2	6.0	4.7	3.9		
				40	10.31	7.9	7.9	7.4	6.7	6.5	5.1	4.2		
			XS		12.7	9.7	9.7	9.2	8.3	8.0	6.3	5.3		
				60	14.27	11.0	11.0	10.4	9.3	9.0	7.1	5.9		
				80	17.48	13.5	13.5	12.8	11.5	11.2	8.8	7.3		
			VVC	100	21.44	16.8	16.8	15.8	14.2	13.8	10.9	9.0		
			XXS	120	25.4	20.0	20.0	18.9	17.0	16.5	13.0	10.8		
				140	28.58	22.7	22.7	21.4	19.3	18.7	14.8	12.3 14.4		
				100	33.32 6.35	26.8 4.4	26.8 4.4	25.3 4.1	22.7 3.7	22.1 3.6	17.4 2.8	2.4		
	14"	355.6		20	7.92	5.5	5.5	5.2	4.6	4.5	3.5	2.9		
			STD	30	9.53	6.6	6.6	6.2	5.6	5.4	4.3	3.6		
			310	40	11.13	7.7	7.7	7.3	6.6	6.4	5.0	4.2		
			XS	10	12.7	8.8	8.8	8.4	7.5	7.3	5.7	4.8		
350			7.5	60	15.09	10.6	10.6	10.0	9.0	8.7	6.9	5.7		
				80	19.05	13.4	13.4	12.7	11.4	11.1	8.7	7.3		
				100	23.83	17.0	17.0	16.0	14.4	14.0	11.0	9.2		
				120	27.79	20.0	20.0	18.9	17.0	16.5	13.0	10.8		
				140	31.75	23.0	23.0	21.7	19.5	19.0	14.9	12.4		
				160	35.71	26.1	26.1	24.6	22.2	21.5	16.9	14.1		
400	16"	406.4		10	6.35	3.8	3.8	3.6	3.2	3.1	2.5	2.1		
				20	7.92	4.8	4.8	4.5	4.1	3.9	3.1	2.6		
			STD	30	9.53	5.8	5.8	5.4	4.9	4.7	3.7	3.1		
			XS	40	12.7	7.7	7.7	7.3	6.6	6.4	5.0	4.2		
				60	16.66	10.2	10.2	9.6	8.7	8.4	6.6	5.5		
				80	21.44	13.2	13.2	12.5	11.2	10.09	8.6	7.1		
				100	26.19	16.3	16.3	15.4	13.8	13.4	10.6	8.8		
				120	30.96	19.4	19.4	18.4	16.5	16.0	12.6	10.5		
				140	36.53	23.1	23.1	21.9	19.7	19.1	15.0	12.5		
				160	40.49	25.8	25.8	24.4	22.0	21.3	16.8	14.0		
				100	40.49	25.8	25.8	24.4	22.0	21.3	10.8	14.0		



CARBON STEEL GRADE B PIPES ASTM A53M / A106 / API 5L / Seamless

			ı	Maxim	num Allowab	le Operat	ing Press	sure (Mpa	a)				
Nominal Size		Outside Diameter	Schedule		Wall Thickness	Temperature (°C)							
						-29 to +38	204	260	343	371	399	427	
	NIDC	(mm)	Scricadic		(mm)	Maximum Allowable Stress (Mpa)							
DN	NPS					137.9	137.9	130.3	117.2	113.8	89.6	74.5	
				10	6.35	3.4	3.4	3.2	2.9	2.8	2.2	1.8	
				20	7.92	4.2	4.2	4.0	3.6	3.5	2.8	2.3	
			STD		9.53	5.1	5.1	4.8	4.3	4.2	3.3	2.8	
				30	11.13	6.0	6.0	5.7	5.1	4.9	3.9	3.2	
			XS		12.7	6.8	6.8	6.5	5.8	5.6	4.4	3.7	
450	18"	457		40	14.27	7.7	7.7	7.3	6.5	6.4	5.0	4.2	
				60	19.05	10.4	10.4	9.8	8.8	8.5	6.7	5.6	
				80	23.83	13.1	13.1	12.3	11.1	10.8	8.5	7.1	
				100	29.36	16.2	16.2	15.3	13.8	13.4	10.6	8.8	
				120	34.93	19.5	19.5	18.4	16.6	16.1	12.7	10.5	
				140	39.67	22.3	22.3	21.1	19.0	18.4	14.5	12.0	
				160	45.24	25.7	25.7	24.3	21.8	21.2	16.7	13.9	
	20"	508		10	6.35	3.0	3.0	2.9	2.6	2.5	2.0	1.6	
			STD	20	9.53	4.6	4.6	4.3	3.9	3.8	3.0	2.5	
			XS	30	12.7	6.1	6.1	5.8	5.2	5.1	4.0	3.3	
				40	15.09	7.3	7.3	6.9	6.2	6.0	4.8	4.0	
F00				60	20.62	10.1	10.1	9.5	8.6	8.3	6.6	5.4	
500				80	26.19	12.9	12.9	12.2	11.0	10.6	8.4	7.0	
				100	32.54	16.2	16.2	15.3	13.8	13.4	10.5	8.7	
				120	38.1	19.1	19.1	18.1	16.2	15.8	12.4	10.3	
				140	44.45	22.5	22.5	21.3	19.1	18.6	14.6	12.1	
				160	50.01	25.5	25.5	24.1	21.7	21.0	16.6	13.8	
	24"	610		10	6.35	2.5	2.5	2.4	2.2	2.1	1.6	1.4	
			STD	20	9.53	3.8	3.8	3.6	3.2	3.1	2.5	2.1	
			XS		12.7	5.1	5.1	4.8	4.3	4.2	3.3	2.8	
				30	14.27	5.7	5.7	5.4	4.9	4.7	3.7	3.1	
600				40	17.48	7.1	7.1	6.7	6.0	5.8	4.6	3.8	
				60	24.61	10.0	10.0	9.5	8.5	8.3	6.5	5.4	
				80	30.96	12.7	12.7	12.0	10.8	10.5	8.3	6.9	
				100	38.89	16.1	16.1	15.2	13.7	13.3	10.5	8.7	
				120	46.02	19.2	19.2	18.2	16.3	15.9	12.5	10.4	
				140	52.37	22.0	22.0	20.8	18.7	18.2	14.3	11.9	
				160	59.54	25.3	25.3	23.9	21.5	20.9	16.4	13.7	





LARGE DIAMETER WITH SPECIAL WALL-THICKNESS



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OTHER PRODUCTS











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