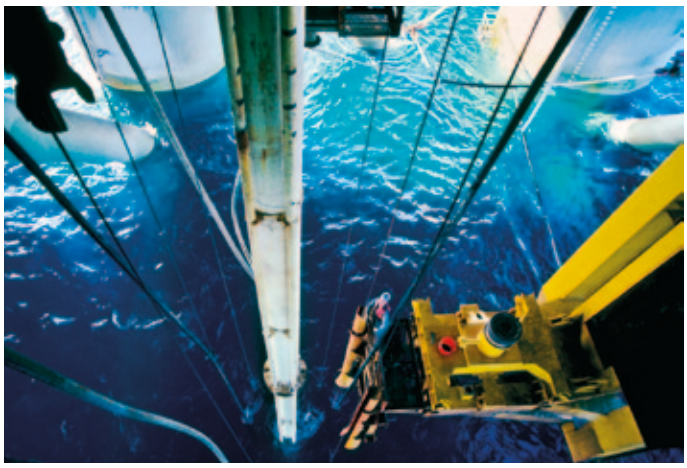
TATA STEEL

TATA

High Frequency Induction
(HFI) Welded Casing



We are the second largest steelmaker in Europe and have an ***extensive track record*** in the supply of steel products into the most demanding of applications worldwide, including casing for downhole drilling and exploration.

Our casing delivers:

- Confidence in product performance due to uniformity of grain structure and hardness throughout the casing pipe
- Reassurance of technical support and extensive testing undertaken by a proven, quality supplier
- Increased confidence that results from a fully traceable and proven steel supply route
- Ability to meet tight leadtimes due to a scheduled manufacturing programme
- Cost effective logistic solutions due to proximity to rail and deep sea port facilities

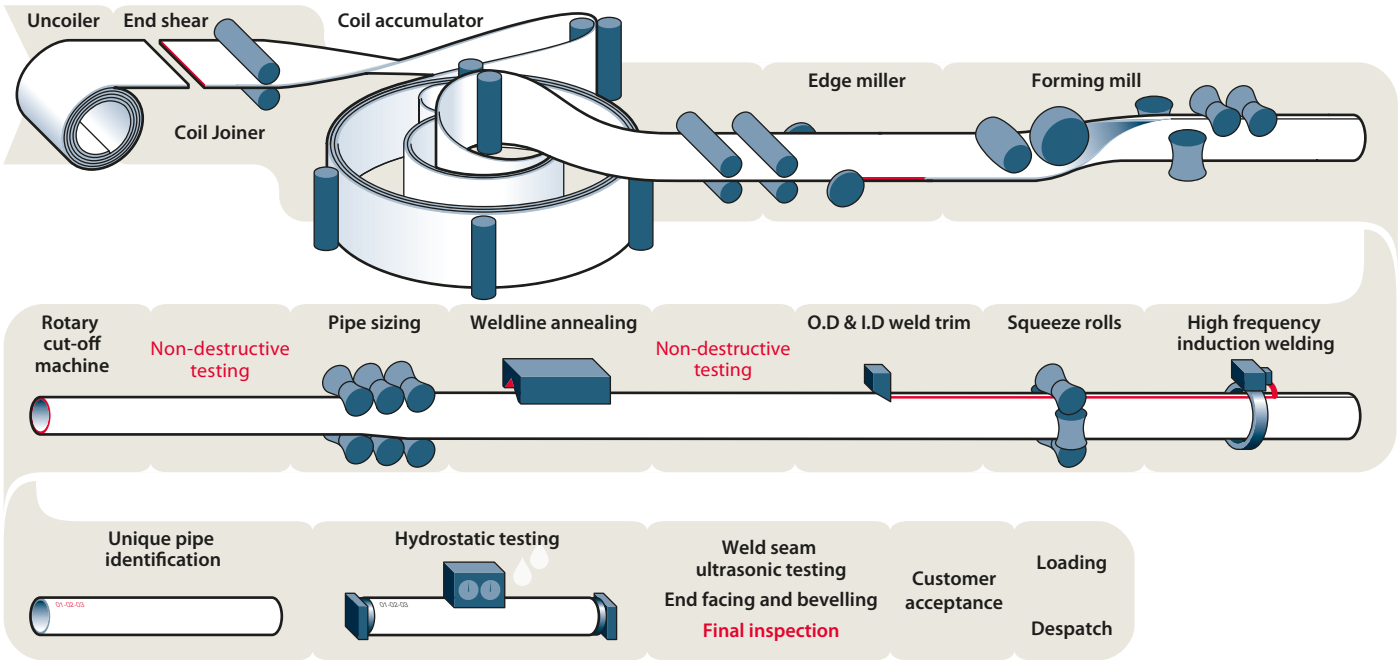
Fully accredited to API 5CT, our 20" high frequency induction (HFI) welded pipe mill in Hartlepool, UK, has an extensive track record in the supply of casing and linepipe for the oil and gas industry.

Casing is produced from coiled strip feedstock manufactured at Tata Steel mills. Heat is induced into the strip edges to form the HFI weld in a process perfected over 40 years. The resultant weld seam is as strong as the parent metal, with uniform properties throughout the weld zone.

We supply a comprehensive range of casing sizes in both J55 and H40 grades from 8 $^{5}/_{8}$ inch through to 20 inch outside diameter.

All of our operations are certified to EN 14001 and EN ISO 9001:2000

HFI welded pipe mill process route



Casing size ranges

Outside Diameter		Nominal linear mass Threaded & Coupled	Calculated Mass Plain-end	Wall thickness		Grade	Collapse resistance [c]		Plain End Pipe Body Yield [d]		Internal Yield Pressure [e]	
in	mm	lb/ft [a]	kg/m [b]	in	mm		psi	MPa	1000lb	KN	psi	MPa
8 5/8	219.1	24.00	35.14	0.264	6.71	J55	1370	9.4	381	1696	2950	20.3
		28.00	40.24	0.304	7.72	H40	1610	11.1	318	1414	2470	17.0
		32.00	46.33	0.352	8.94	H40	2200	15.2	366	1628	2860	19.7
						J55	2530	17.4	503	2238	3930	27.1
		36.00	52.35	0.400	10.16	J55	3450	23.8	568	2529	4460	30.7
9 5/8	244.5	32.30	46.20	0.312	7.92	H40	1370	9.4	365	1624	2270	15.6
		36.00	51.93	0.352	8.94	H40	1720	11.9	410	1824	2560	17.6
						J55	2020	13.9	564	2509	3520	24.3
		40.00	57.99	0.395	10.03	J55	2570	17.7	630	2802	3950	27.2
10 3/4	273.1	32.75	46.50	0.279	7.09	H40	840	5.8	367	1633	1820	12.5
		40.50	57.91	0.350	8.89	H40	1390	9.6	457	2035	2280	15.7
						J55	1580	10.9	629	2797	3130	21.6
		45.50	65.87	0.400	10.16	J55	2090	14.4	715	3182	3580	24.7
		51.00	73.75	0.450	11.43	J55	2710	18.7	801	3562	4030	27.8
13 3/8	339.7	48.00	68.48	0.330	8.38	H40	740	5.1	541	2406	1730	11.9
		54.50	78.55	0.380	9.65	J55	1130	7.8	853	3795	2730	18.8
		61.00	88.55	0.430	10.92	J55	1540	10.6	962	4278	3090	21.3
		68.00	98.46	0.480	12.19	J55	1950	13.4	1069	4757	3450	23.8
16	406.4	65.00	96.73	0.375	9.53	H40	630	4.3	736	3275	1640	11.3
		75.00	108.49	0.438	11.13	J55	1020	7.0	1178	5239	2630	18.1
		84.00	122.09	0.495	12.57	J55	1410	9.7	1326	5899	2980	20.5
18 5/8	473.1	87.50	125.91	0.435	11.05	H40	630	4.3	994	4423	1630	11.2
						J55	630	4.3	1367	6081	2250	15.5
20	508	94.00	136.38	0.438	11.13	H40	520	3.6	1077	4789	1530	10.5
						J55	520	3.6	1480	6585	2110	14.5
		106.50	155.13	0.500	12.70	J55	770	5.3	1685	7494	2410	16.6
		133.00	195.66	0.635	16.13	J55	1500	10.3	2125	9451	3060	21.1

Oversize drift available on certain sizes by request

[a] based on finished threaded and coupled product. Tata Steel supply plain end only

[b] based on plain end product

[c] Collapse resistance calculated from clause 8 of API TR 5C3 First Edition / ISO10400:2007

[d] Plain end pipe body yield calculated from equation 11 of API TR 5C3 First Edition / ISO10400:2007

[e] Internal yield pressure calculated from equation 10 of API TR 5C3 First Edition / ISO10400:2007

www.tatasteel.com

Tata Steel
PO Box 101, Weldon Road, Corby, Northants
NN17 5UA United Kingdom
T: +44 (0) 1536 404261
energyprojects@tatasteel.com
www.tatasteelenergy.com
English Language EP12:PDF:UK:07/2012