

TOGA

BLACK & GALVANIZED STEEL PIPE

TOGA BSEN10255 CLASS MEDIUM DN32 X 3.2 X LENGTH W

TOGA BSEN10255 CLASS MEDIUM DN32 X 3.2 X LENGTH W

TOGA BSEN10255 CLASS MEDIUM DN32 X 3.2 X LENGTH W



Workshop

PRODUCTION EQUIPMENT + 生產設備



Forming machine



Heat treatment machine



Hydrostatic test machine



Ultrasonic flaw detection

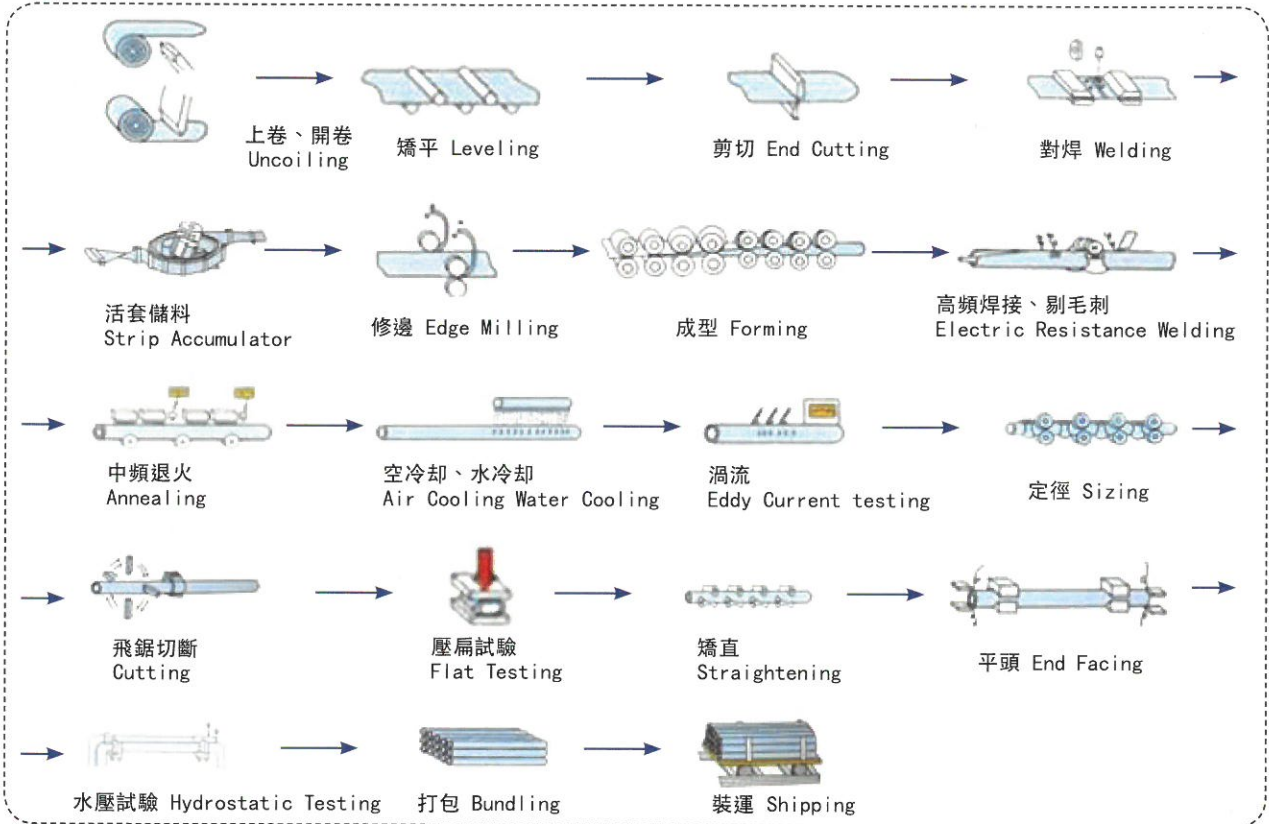


Uncoiler machine

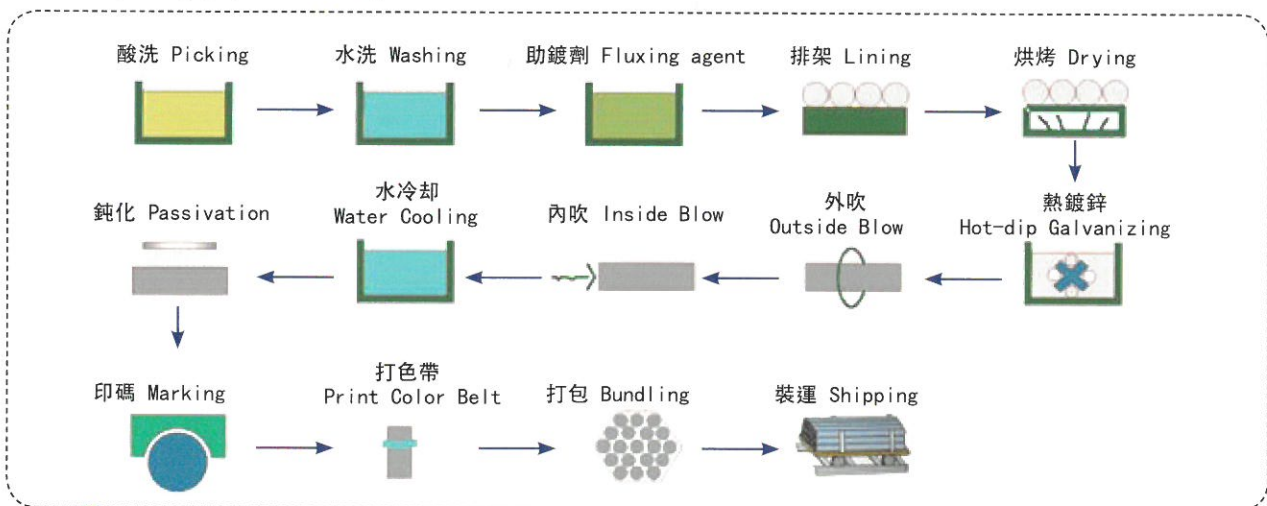
MANUFACTURING PROCESS + 工藝流程

直縫焊管工藝流程圖

Electric Resistance Welded Pipes Process



熱鍍鋅工藝流程-Hot-dip Galvanized Process



TOGA

QUALITY INSPECTION + 質量檢測

檢測設備

- 壓扁試驗：生產過程中做 0° 和 90° 壓扁試驗，保障焊管的工藝性能要求。
- 水壓試驗：對每根鋼管的母材和焊縫提供密實性保障。
- 成品檢驗：為用戶提供符合合同規範的鋼管。
- 離線焊縫無損檢測：用于水壓試驗後鋼管焊縫缺陷檢測、焊縫兩側分層檢測。
- 管端及坡口面無損檢測：檢測管端母材和焊縫材料分層、裂痕及缺陷。
- 離線全管體無損檢測：用于水壓試驗後鋼管缺陷的檢測。

TEST AND INSPECTION

- FLATTENING TEST: in order to reveal the compression strength of the tested metallic tube, the specimen shall be placed in the press in such a manner that the seam is set at 90 or 0 to the direction of the pressure.
- HYDROSTATIC TEST: hydrostatic test has been used to determine and verify pipeline integrity of base material and welding seam.
- FINISHED PRODUCT INSPECTION: after production, a final test will be performed to confirm if all the customer's requirements were met.
- WELDING SEAM NDT TEST: to check if there were any defects that located on either side of the welding seams after hydrostatic testing.
- PIPE ENDS NDT TEST: to check if there were any defects that located on either end of the pipe.
- PIPE FULL BODY NDT TEST: it performs a whole pipe body check to find if there were any defects on the pipe.



Flattening test



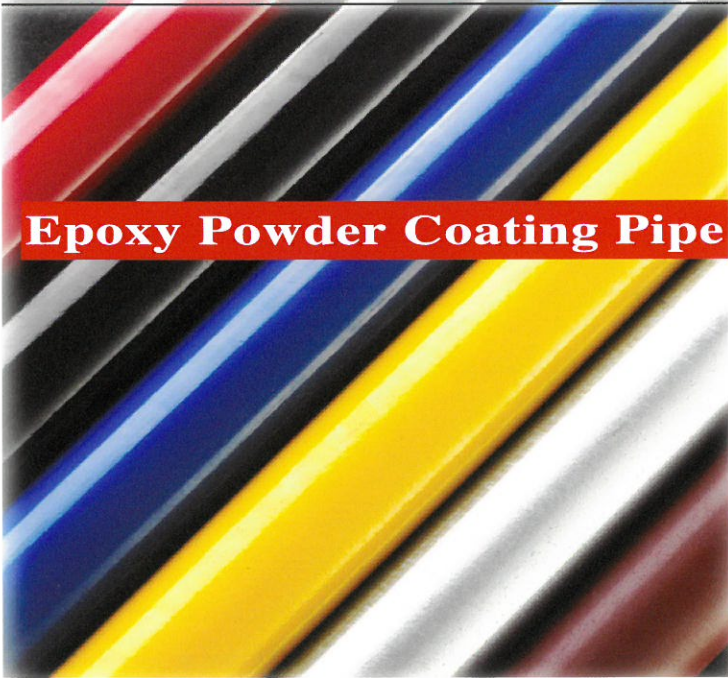
Hydrostatic test



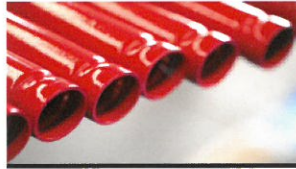
Inspection center



NDT testing



Spray space



Details of The Epoxy Coating Pipe

Epoxy Coated Steel Pipe

Specification:

Coating Material: Epoxy Resin Powder
Coating Color: Red, Blue, Yellow, Black, White, Brown

Coating Thickness: 40 - 300µm

Size: 1/2" - 8"

Normal Pressure: 0.1 Mpa - 5Mpa

Connection: Grooved Threaded, Flanged

Application: Water System, Fire - Fighting System, HVAC System



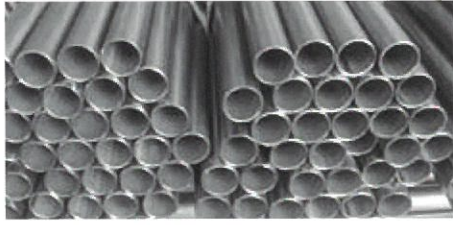
Advantages:

- Environmental Friendly
- Epoxy outside, or both outside & inside
- Good Adhesion/Durability
- High Resistance to the Corrosion
- Resistance to blows and Chemical Aggressions
- Better Appearance
- Drinking Water System



Artist of Surface Coating

TOGA



歐標 BS EN10255 平頭鋼管、螺紋鋼管

BS EN10255 Steel Pipes suitable for welding plain end steel pipe or threaded end steel pipe

級別 Classification	公稱尺寸 Nominal Size	外徑 Outside Diameter		壁厚 Wall Thickness	焊管重量 Mass of Black Tube	
	毫米(mm)	最小值 Min.(mm)	最大值 Max.(mm)	毫米(mm)	平頭 Plain End (kg/m)	螺紋+管箍 Threaded with Socket (kg/m)
H (Heavy Series)	8	13.2	14.0	2.9	0.765	0.769
	10	16.7	17.5	2.9	1.02	1.03
	15	21.0	21.8	3.2	1.44	1.45
	20	26.5	27.3	3.2	1.87	1.88
	25	33.3	34.2	4	2.94	2.96
	32	42.0	42.9	4	3.8	3.83
	40	47.9	48.8	4	4.38	4.42
	50	59.7	60.8	4.5	6.19	6.26
	65	75.3	76.6	4.5	7.93	8.05
	80	88.0	89.5	5	10.3	10.5
	100	113.1	115.0	5.4	14.5	14.8
	125	138.5	140.8	5.4	17.9	18.4
150	163.9	166.5	5.4	21.3	21.9	
M (Medium Series)	8	13.2	14.0	2.3	0.641	0.645
	10	16.7	17.5	2.3	0.839	0.845
	15	21.0	21.8	2.6	1.21	1.22
	20	26.5	27.3	2.6	1.56	1.57
	25	33.3	34.2	3.2	2.41	2.43
	32	42.0	42.9	3.2	3.1	3.13
	40	47.9	48.8	3.2	3.56	3.6
	50	59.7	60.8	3.6	5.03	5.1
	65	75.3	76.6	3.6	6.42	6.54
	80	88.0	89.5	4	8.36	8.53
	100	113.1	115.0	4.5	12.2	12.5
	125	138.5	140.8	5	16.6	17.1
150	163.9	166.5	5	19.8	20.4	

備注 Note:

1. 中型、重型管壁厚允許偏差 $\pm 10\%$
2. 成品長度允許偏差 $+10\text{毫米}/0$

Wall thickness tolerance of Medium & Heavy type is $\pm 10\%$
Length tolerance of pipe: $+10\text{mm}/0$

EN 10217-1 Steel Pipes and tubes for Pressure Purposes
(1) Available Size (Dimension and Weights)

(Room Temperature)
(Elevated Temperature)

Normal Size	Outside diameter mm	Thickness (mm)														Thickness (mm)														Outside diameter mm	Normal Size
		2.0	2.3	2.6	2.9	3.2	3.6	4.0	4.5	5.0	5.4	5.6	5.9	6.3	7.1	8.0	8.8	10.0	11.0	12.5	14.2	16.0	17.5	20.0	22.2	25.0					
		Mass per unit length (kg/m)														Mass per unit length (kg/m)															
20	26.9				1.56	1.72	1.87	2.07	2.26	2.49	2.70	2.86	2.94	3.06	3.20	3.47											26.9	20			
25	33.7						2.41	2.67	2.93	3.24	3.54	3.77	3.88	4.04	4.26	4.66	5.07	5.40									33.7	25			
32	42.4						3.09	3.44	3.79	4.21	4.61	4.93	5.08	5.31	5.61	6.18	6.79	7.29									42.4	32			
40	48.3							3.97	4.37	4.86	5.34	5.71	5.90	6.17	6.53	7.21	7.95	8.57									48.3	40			
50	60.3		2.88	3.29	3.70	4.11	4.51	5.03	5.55	6.19	6.82	7.31	7.55	7.92	8.39	9.32	10.3	11.2	12.4	13.4	14.7						60.3	50			
65	76.1		3.65	4.19	4.71	5.24	5.75	6.44	7.11	7.95	8.77	9.42	9.74	10.2	10.8	12.1	13.4	14.6	16.3	17.7	19.6	21.7	23.7				76.1	65			
80	88.9			4.91	5.53	6.15	6.76	7.57	8.38	9.37	10.3	11.1	11.5	12.1	12.8	14.3	16.0	17.4	19.5	21.1	23.6	26.2	28.8	30.8	34.0		88.9	80			
90*	101.6*			5.63	6.35	7.06	7.77	8.70	9.63	10.8	11.9	12.8	13.3	13.9	14.8	16.5	18.5	20.1	22.6	24.6	27.5	30.6	33.8	36.3	40.2	43.5	47.2	101.6*	90*		
100	114.3			6.35	7.16	7.97	8.77	9.83	10.9	12.2	13.5	14.5	15.0	15.8	16.8	18.8	21.0	22.9	25.7	28.0	31.4	35.1	38.8	41.8	46.5	50.4	55.1	114.3	100		
125	139.7						10.8	12.1	13.4	15.0	16.6	17.9	18.5	19.5	20.7	23.2	26.0	28.4	32.0	34.9	39.2	43.9	48.8	52.7	59.0	64.3	70.7	139.7	125		
150	168.3						13.0	14.6	16.2	18.2	20.1	21.7	22.5	23.6	25.2	28.2	31.6	34.6	39.0	42.7	48.0	54.0	60.1	65.1	73.1	80.0	88.3	168.3	150		
175*	193.7*							18.7	21.0	23.3	25.1	26	27.3	29.1	32.7	36.6	40.1	45.3	49.6	55.9	62.9	70.1	76.0	85.7	93.9	104		193.7*	175*		
200	219.1						17.0	19.1	21.2	23.8	26.4	28.5	29.5	31.0	33.1	37.1	41.6	45.6	51.6	56.5	63.7	71.8	80.1	87.0	98.2	108	120	219.1	200		
225*	244.5*							23.7	26.6	29.5	31.8	33.0	34.7	37.0	41.6	46.7	51.2	57.8	63.3	71.5	80.6	90.2	98.0	111	122	135	244.5*	225*			
250	273							26.5	29.8	33.0	35.6	36.9	38.9	41.4	46.6	52.3	57.3	64.9	71.1	80.3	90.6	101	110	125	137	153	273	250			
300	323.9								35.4	39.3	42.4	44.0	46.3	49.3	55.5	62.3	68.4	77.4	84.9	96.0	108	121	132	150	165	184	323.9	300			
350	355.6									43.2	46.6	48.3	50.9	54.3	61.0	68.6	75.3	85.2	93.5	106	120	134	146	166	183	204	355.6	350			
400	406.4									49.5	53.4	55.4	58.3	62.2	69.9	78.6	86.3	97.8	107	121	137	154	168	191	210	235	406.4	400			
450	457									55.7	60.1	62.3	65.6	70.0	78.8	88.6	97.3	110	121	137	155	174	190				457	450			
500	508									62.0	66.9	69.4	73.1	77.9	87.7	98.6	108	123	135	153	173	194	212				508	500			
550	559														85.9	96.6	109	119	135	149	168	191	214				559	550			
600	610															93.8	106	119	130	148	162	184	209	234	256		610	600			
650	660															102	114	129	141	160	176	200	226	254	277		660	650			
700	711															109	123	139	152	173	190	215	244	274	299		711	700			
750	762															117	132	149	163	185	204	231	262	294	321		762	750			
800	813															125	141	159	175	198	218	247	280	314	343	391		813	800		
850	864															133	150	169	186	211	231	262	298	335	365	416		864	850		
900	914															141	159	179	196	223	245	278	315	354	387	441		914	900		
1000	1016															157	177	199	219	248	273	309	351	395	431	491	544		1016	1000	
1200	1220															189	212	239	263	298	328	372	422	475	519	592	656	737	1220	1200	
1400	1420															220	247	279	306	348	382	434	492	554	605	691	765	860	1420	1400	
1600	1620																282	318	350	397	436	496	562	633	692	789	875	983	1620	1600	
1800	1820																357	393	446	491	557	632	712	778	888	984	1107	1820	1800		
2000	2020																	436	496	545	619	702	791	864	986	1094	1230	2020	2000		
2200	2220																		545	599	681	772	870	951	1085	1203	1353	2220	2200		

* The use of these sizes should be avoided whenever possible.

Note : ◯ □ Indicates availability subject to prior consultation. ○ Sizes outside the above size range are on an inquiry basis.

TOGA



東成五金有限公司
TUNG SHING HARDWARE CO., LTD.

九龍油塘灣四山街14號地庫

14 Sze Shan Street, Basement, Yau Tong Bay, Kowloon, Hong Kong.

Office: Tel: (852) 2626 9983 Fax: (852) 2626 9357

E-mail: tscold@tscold.co.hk

