

CONNECTING
THE NATION
WITH THE BEST



**L.B.H. BROTHER
INDUSTRIES SDN BHD**

WHAT DRIVES OUR COMPANY?

what drives our company?

Passion and commitment to be the best in developing quality products for Malaysia. LBH Brother Industries Sdn Bhd (LBHBI) is a fully committed manufacturer of Mild Steel Cement Lining Pipes and Fittings in Malaysia. Built on the unrivalled reputation of providing the best in Quality Products with an excellent workforce of committed and dedicated professionals and workers, we've streamlined our disciplines in propelling our products to the forefront of excellence with a corporate credo of providing - "Quality Assured, Service Guaranteed". It has deemed fruitful as our customers enjoyed the benefits of our company's vision and commitment, hitting an all-time high of 95% customer satisfaction. We won't just stop here but will continue to break borders to develop products of superior quality. Assurance granted.

With a humble beginning in 1992 as a family business under the leadership of Mr. Low Ban Hin and his brother, the company has come a long way. LBHBI grew impressively, moving on from their first operation premise to an "all new" production factory targeting to be one of the leading steel pipes manufacturer in Malaysia.

Recognizing that progress is imperative to success, LBH Brother Industries Sdn Bhd is constantly improving its operations and seeking out new opportunities for growth. LBHBI was certified with ISO 9001 : 2000 by BM TRADA in 2002, and committed to fulfilling the needs and expectation of our customers through continual improvement utilizing our corporate "5 Excellence Pathway" (Excellent Management System, Excellent Products, Excellent Workforce, Excellent Infrastructure and Excellent Marketing). Product excellence has been and will always be our utmost priority at all times, with a new production line in a two acre land with the latest state-of-the-art cutting edge technology, and an increment of 40% production capacity to meet growing demand will be realized. That's your assurance of success.





OUR QUALITY IS OF THE HIGHEST STRINGENT MEASURES
ASSURED BY ISO 9001:2000

ASSURANCE OF TOP QUALITY PRODUCTS

assurance of top quality products

As a certified company with ISO 9001:2000 by BM TRADA in 2002, we've a responsibility and commitment to uphold this industry standard. We believe quality is key to everything that we do. From sourcing of materials, manufacturing processes, quality control to customer service, no effort is spared in ensuring products of the highest quality are rolled out of our plant.

Our quality steel pipes are produced according to British Standards BS534:1990, BS3600:1976 and BS3601:1987 standards, and are certified by Ikram Quality & Certification Institute.

LBH Brother Industries Sdn Bhd places quality control at the heart of its operation. We believe in delivering the best products at the most competitive prices. That's why most of our raw materials are made in Malaysia and manufactured in accordance to requirement up to data specification.

Our plant manufacture pipes from 100mm to 600mm ND and fittings in sizes ranging from 100mm to 2,200mm ND in diameter, catering to a wide range of customers from JBA to township developers to hardware companies. Therefore, stringent control in the areas of inventory management, on-time delivery of products and other logistics are of utmost importance.

The most critical path is in the manufacturing process. At every step of the process, our QC engineers perform rigorous tests and thorough inspections. These include ultrasonic thickness testing, concrete test cube for strength, bitumen 'pin-hole' detection and more. No stone is unturned in our manufacturing process in order to produce the products of stringent quality that can only carry the brandname of LBH Brother Industries Sdn Bhd. Assurance has its price.





WE BUILD ON OUR CORE PRINCIPLES...
"QUALITY ASSURED, SERVICE GUARANTEED."
THE VISION OF OUR FOUNDER MR. LOW BAN HIN.

WE BUILD ON TOTAL CUSTOMER SATISFACTION

we build on customer total satisfaction

The real test of any product or service lies in the customer's satisfaction. This makes or breaks our reputation. That's why we make customer satisfaction our top priority.

LBH Brother Industries Sdn Bhd is second to none when it comes to customer service. Most importantly, we strive to continuously improve our effective management system to enhance our customer satisfaction as they vary in expectations. Customer satisfaction expectations are LBH Brother Industries Sdn Bhd's top priority. Our track record of quality products and prompt delivery on which customer's trust are built have been the hallmark of our success. How has this been successful? Simple, our core values in deliverables, management, marketing, research and development goes through stringent evaluation and periodic upgrades capitalising on opportunities for improvement. We ensure our customers with products of highest quality and the best technical support by our principal features and the quality control that is built into every stage of the production process.

LBHBI is recognized synonymously with quality products, competitive pricing and full range of services to meet our customers' requirement. The trust of our customers with LBHBI is the source of our pride.





WE ENABLE INTEGRATED CUSTOMER MANAGEMENT TO PROVIDE
THE HIGHEST QUALITY CONTROL THAT BUILDS STRONGER AND
PROFITABLE CUSTOMER RELATIONSHIPS.
THIS PROPELS US TO WHERE WE ARE TODAY.

LBH BROTHER INDUSTRIES SDN BHD
PRODUCTS THAT HAS PARTNERED MALAYSIA'S GROWTH.

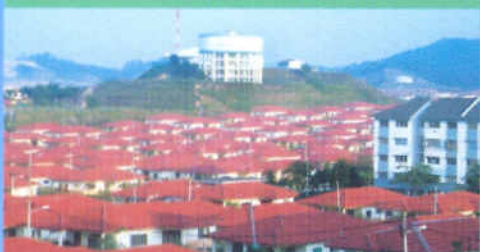
WATER TREATMENT PLANT



SERVICE RESERVOIR



HOUSING DEVELOPMENT



PIPE RELOCATION AT ROAD
UPGRADING PROJECT



PIPE LINE S-BEND

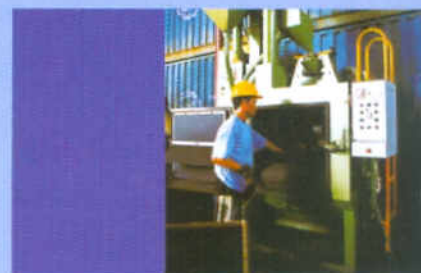


PIPE SPECIALS FOR
MAIN TRANSMISSION LINE

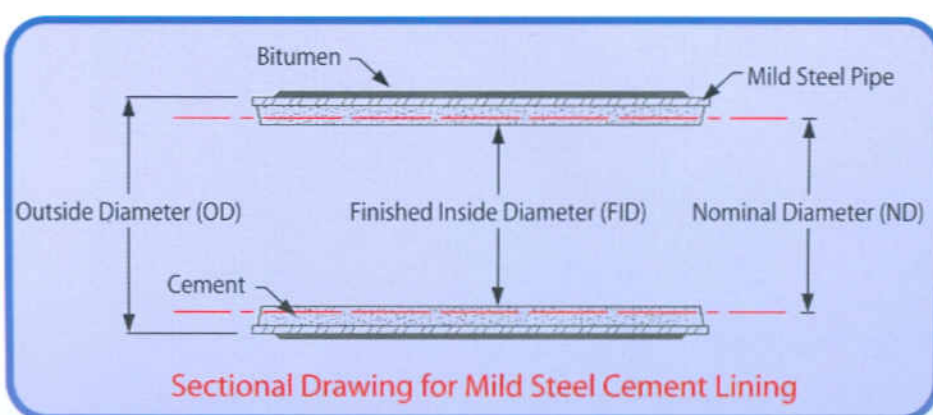


MSCL PIPE SPECIFICATION

JKR STANDARD
TABLE 1



Nominal Diameter	Outside Diameter	Minimum Nominal Thickness	Minimum Thickness of Concrete	Finished Internal Diameter	Total Pipe Weight MSCL
(mm)	(mm)	(mm)	(mm)	(mm)	(kg/m)
100	121.9	4.1	10	93.7	20.17
150	177.3	4.1	10	149.1	30.05
200	232.2	4.1	10	204.0	41.20
250	286.0	4.1	10	257.8	51.11
300	345.4	5.8	10	313.8	75.91
350	399.3	5.8	13	361.7	97.60
400	453.1	5.8	13	415.5	111.13
450	507.0	5.8	13	469.4	124.68
500	560.3	5.8	13	522.7	138.09
600	667.0	6.5	13	628.0	176.10
650	692.0	7.4	13	651.2	197.72
700	754.0	7.4	19	701.2	243.75
750	804.0	7.4	19	751.2	260.28
800	854.0	7.4	19	801.2	276.80
900	954.0	7.4	19	901.2	309.85
1000	1054.0	8.0	19	1000.0	358.12
1100	1157.0	9.5	25	1088.0	478.78
1150	1219.0	9.5	25	1150.0	504.94
1200	1270.0	10.0	25	1200.0	541.71
1300	1372.0	11.0	25	1300.0	618.99
1400	1472.0	11.0	25	1400.0	664.88
1500	1576.0	13.0	25	1500.0	788.51
1600	1676.0	13.0	25	1600.0	839.33
1700	1776.0	13.0	25	1700.0	890.15
1800	1876.0	13.0	25	1800.0	940.97
1900	1976.0	13.0	25	1900.0	991.79
2000	2088.0	14.0	30	2000.0	1165.37
2100	2189.0	14.5	30	2100.0	1248.97
2200	2290.0	15.0	30	2200.0	1307.36



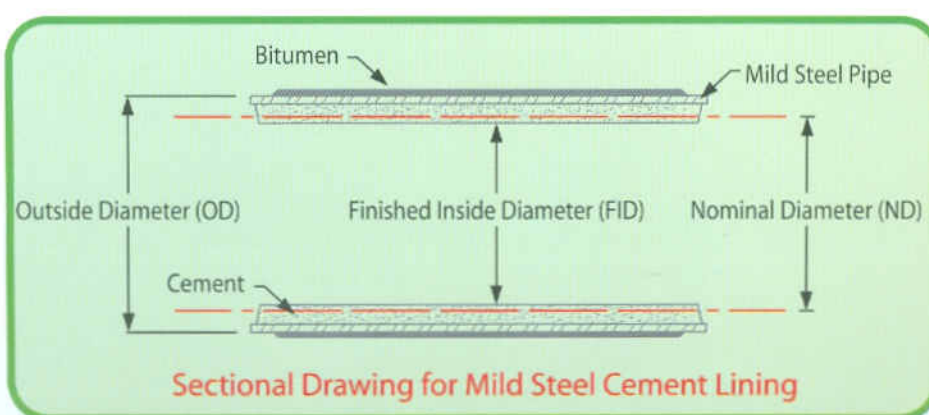
MSCL PIPE SPECIFICATION

BS EN 10224 : 2002 / BS 534 : 1990

TABLE 2



Nominal Diameter	Outside Diameter	Minimum Nominal Thickness	Minimum Thickness of Concrete	Thickness of Bitumen Sheating Material	Steel Pipe Weight	Hydraulic Test Pressure (Steel 430)
(mm)	(mm)	(mm)	(mm)	(mm)	(kg/m)	(bar)
100	114.3	3.6	6	3.0	9.83	70 <i>140 kg</i>
150	168.3	3.6	6	3.0	14.60	70 <i>210 kg</i>
200	219.1	4.0	10	4.5	21.20	70
250	273.0	4.0	10	4.5	26.50	64
300	323.9	4.0	10	4.5	31.60	54
350	355.6	4.5	13	6.0	39.00	56
400	406.4	4.5	13	6.0	44.60	49
450	457.0	5.0	13	6.0	55.70	48
500	508.0	5.0	13	6.0	62.00	43
550	559.0	6.3	13	6.0	85.90	50
600	610.0	6.3	13	6.0	93.80	45
650	660.0	6.3	19	6.0	102.00	42
700	711.0	6.3	19	6.0	109.00	39
750	762.0	6.3	19	6.0	117.00	36
800	813.0	7.1	19	6.0	141.00	38
850	864.0	7.1	19	6.0	150.00	36
900	914.0	7.1	19	6.0	159.00	34
1000	1016.0	7.1	19	6.0	177.00	31
1200	1219.0	8.0	19	6.0	239.00	29
1400	1422.0	8.8	25	6.0	307.00	27
1600	1626.0	10.0	25	6.0	399.00	27
1800	1829.0	11.0	25	6.0	493.00	26
2000	2032.0	12.5	25	6.0	623.00	27
2200	2235.0	14.2	25	6.0	778.00	28



PIPES SPECIALS & FITTINGS



A) BENDS

TABLE 3

Pipe N.D.	Pipe O.D.	Type 1	Type 2				Type 3	
		Not more than 30°	Over 30° to 45°		Over 45° to 60°		Over 60° to 90°	
		L1	R	L2	R	L2	R	L3
mm	mm	mm	mm	mm	mm	mm	mm	mm
100	114.3	175	150	200	150	250	150	300
150	168.3	225	225	300	225	300	225	400
200	219.1	300	300	350	300	400	300	500
250	273	375	375	450	375	500	375	650
300	323.9	375	450	450	450	500	450	700
350	355.6	450	525	550	525	600	525	800
400	406.4	450	600	600	600	600	600	850
450	457	450	675	600	450	600	450	850
500	508	450	750	600	500	600	500	850
550	559	450	825	650	550	600	550	850
600	610	550	900	750	600	750	600	1000
650	660	550	975	750	650	750	650	1000
700	711	550	1050	800	700	750	700	1100
750	762	600	1125	850	750	850	750	1100
800	813	600	1200	850	800	850	800	1200
850	864	600	1275	850	850	850	850	1200
900	914	600	1350	900	900	900	900	1300
1000	1016	750	1500	1100	1000	1100	1000	1500
1200	1219	850	1800	1200	1200	1200	1200	1700
1400	1422	850	2100	1300	1400	1300	1400	1900
1600	1626	900	2400	1400	1600	1400	1600	2100
1800	1829	900	2700	1500	1800	1500	1800	2200
2000	2032	1000	3000	1600	2000	1600	2000	2500
2200	2235	1000	3300	1700	2200	1700	2200	2600

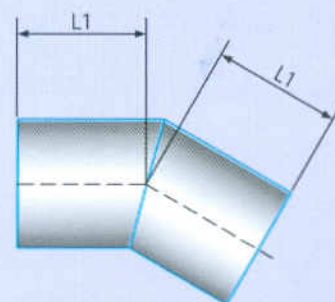


Figure 1: Gusseted bend type 1
not more than 30°

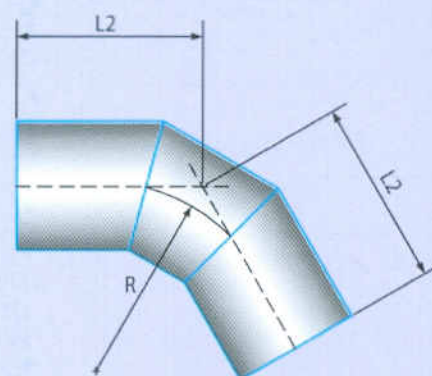


Figure 2: Gusseted bend type 2
over 30° upto 60°

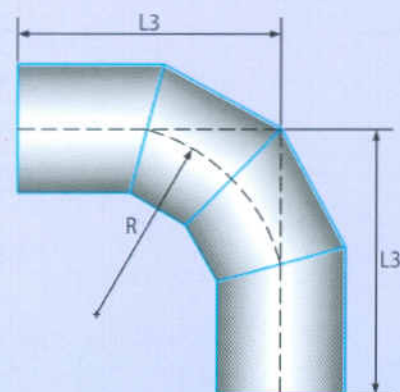


Figure 3: Gusseted bend type 3
over 60° up to 90°

PIPES SPECIALS & FITTINGS



B) TEES

TABLE 4

Nominal Diameter	Barrel		Branch		
	Outside Diameter	C	Outside Diameter	0.5 times OD of barrel 'A' plus	
	A		B	D	F
mm	mm	mm	mm	mm	mm
100	114.3	270	114.3	200	130
150	168.3	290	168.3	200	140
200	219.1	370	219.1	250	150
250	273	410	273	250	160
300	323.9	450	323.9	250	180
350	355.6	530	355.6	300	200
400	406.4	600	406.4	300	230
450 to 700	457 to 711	1.5 times OD of branch 'B' but with a min. of 0.5 times OD of barrel 'A'	457 to 711	300	300
750 to 900	762 to 914		762 to 914	380	300
1000 to 2200	1016 to 2235		1016 to 2220	380	380

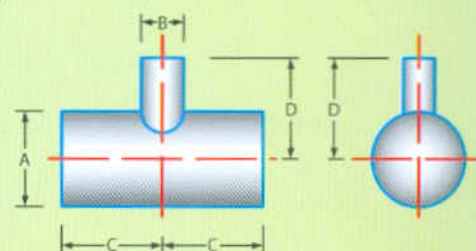


Figure 4 : Plain End Tee for Slip-on Type Coupling and Butt Welded Joint

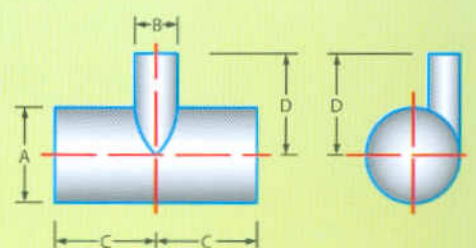


Figure 5 : Plain End Level-Inverted Tee

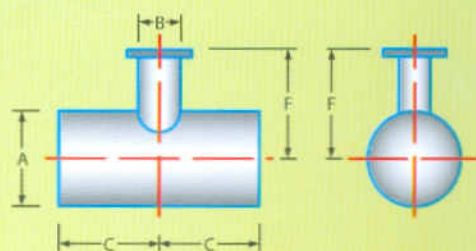


Figure 6 : Tee with Flanged Branch

C) TAPER

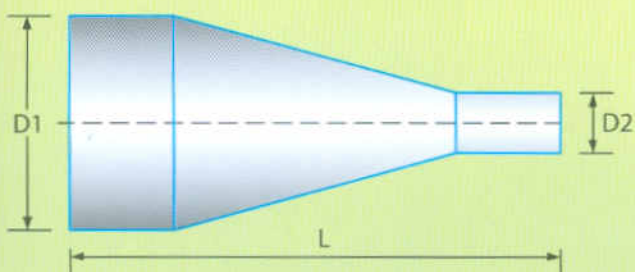


Figure 7 : Concentric Taper

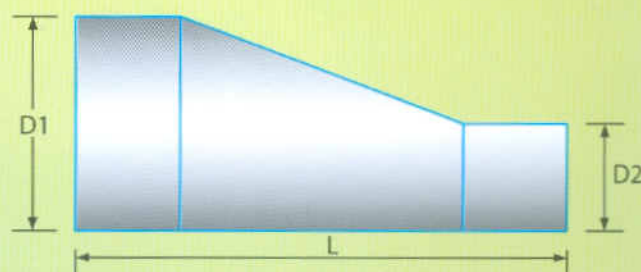
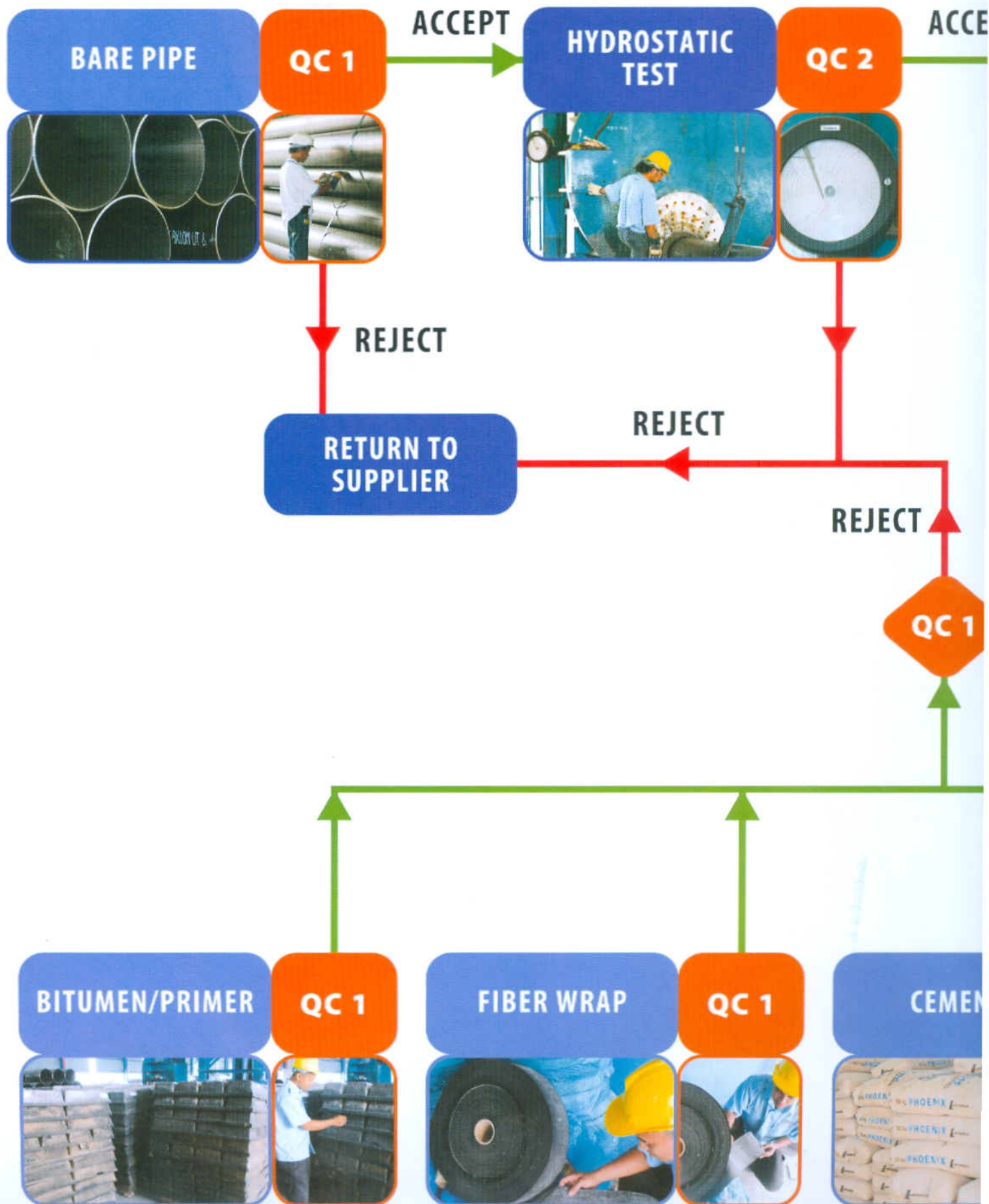
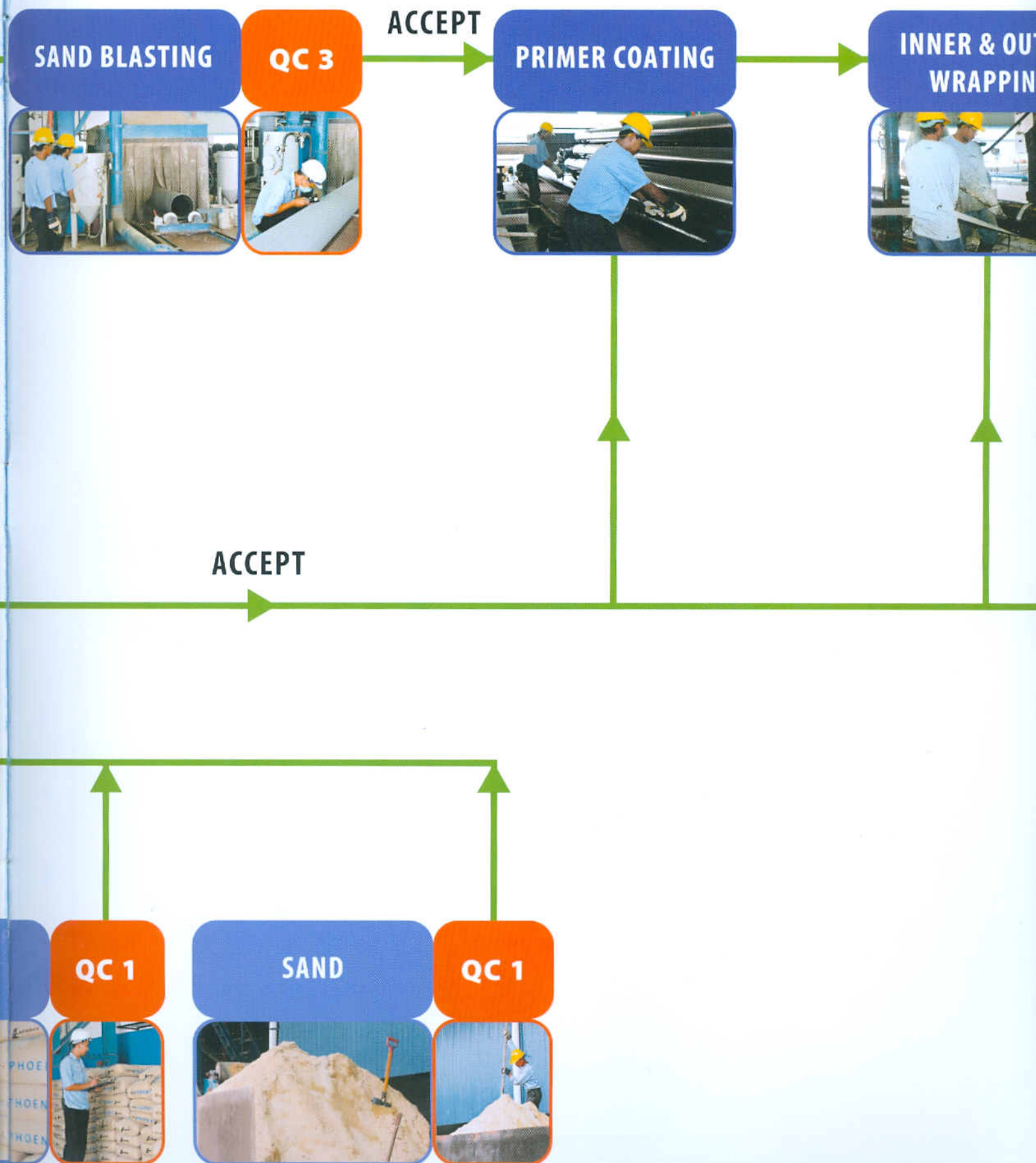


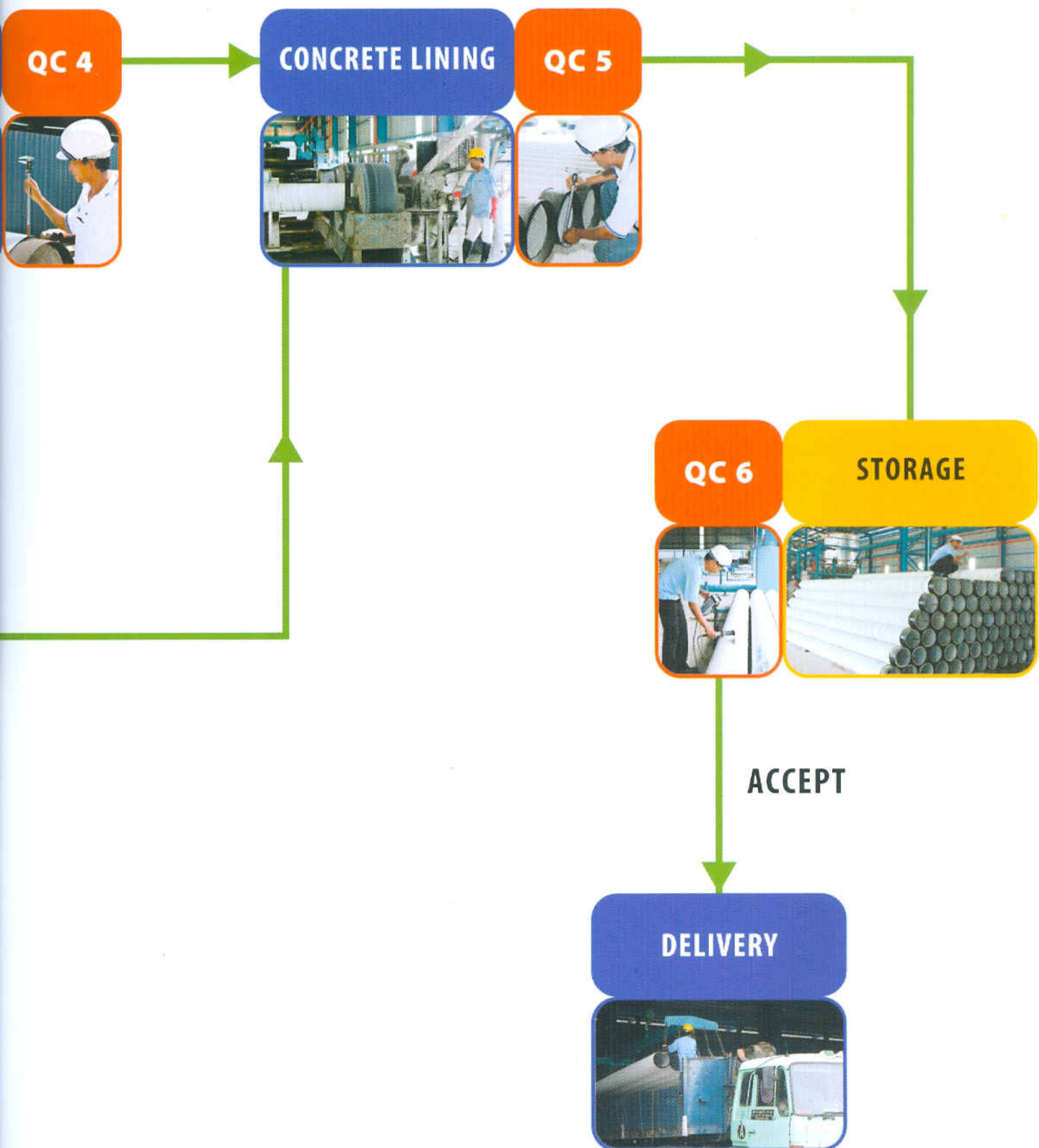
Figure 8 : Eccentric or Flat Taper

PRODUCTION PROCESS & QU



QUALITY CONTROL FLOW CHART

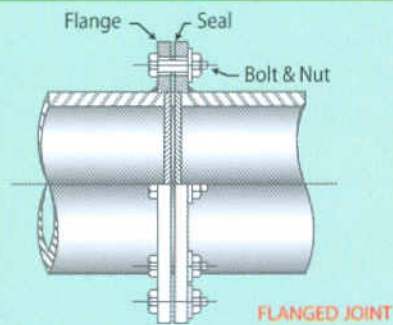




— PROCESS FLOW

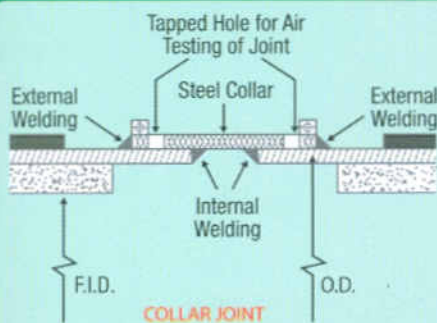
REMARKS :

JOINT DETAILS



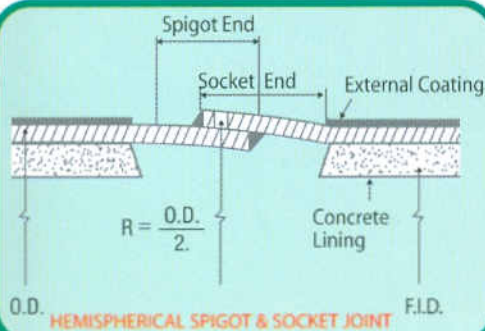
FLANGED JOINT

The dimension confirms with BS 4504. This type of joint is suitable for permanent or temporary installation.



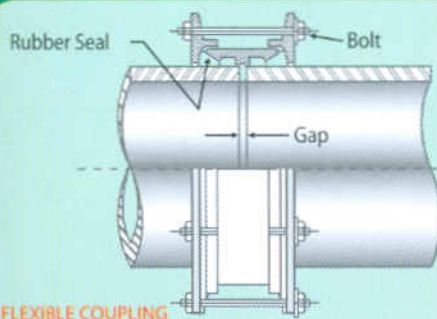
COLLAR JOINT

This type of joint is for permanent installation of plain ended pipe/fittings, with or without internal welding (depending on pipe size).



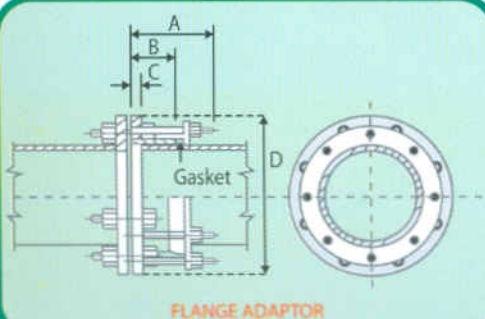
HEMISPHERICAL SPIGOT & SOCKET JOINT

This is the most popular and economical joint for long distance pipeline installation. It is also designed to take an angular deflection of up to 2° from axial to accommodate changes of pipe gradients.



FLEXIBLE COUPLING

This coupling is suitable for difficult terrain and when future dismantling is required. It is also capable of accommodating 3° to 6° deflection.



FLANGE ADAPTOR

Most suitable for joining a plain ended pipe to a flanged pipe/fitting special such as valve, pump etc for easy dismantling for repairs and maintenance.

LBH PRODUCTS



Pipe



Bend



Taper



Tee



Flange Offtake Tee



Collar

THE WAY TO LBH FACTORY

