

# Pipeline

Distribution (M) Sdn. Bhd.

## **Pipeline**<sup>®</sup>

Distribution (M) Sdn. Bhd.

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### **COMING SOON**

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# **PIPELINE**

The Specialist for Pre-Painted Fabricated Pipe for FIRE PROTECTION SYSTEMS

> For Safety, Quality and Productivity Reduced site costs and installation time



### **VISION, MISSION, VALUES**

"To Be the Leading Pre-fabricated Pipe Brand In The Asia Region" - Our Vision

"To Be the Preferred Pre- Fabricated Pipe Parnter for Leading Brands" - Mission Statement

> "Commitment to Business Integrity, Honesty, Safety, Quality and Protection of the Environment" - Core Values

### Fabrication of Pipe for FIRE Protection since 1998

Pipeline Distribution (M) Sdn Bhd is a wholly owned subsidiary of Deluge Fire Protection (S.E.A) Pte Ltd Singapore. We have been producing prefabricated carbon steel pipes for fire protection since 1998 and are the preferred choice for many high profile and outstanding projects.

Pipeline<sup>®</sup> is the leading Fire Protection Pipe Fabricator in Singapore and Malaysia with a total annual capacity in excess of 8,000 tons. Strategically located in Jurong, Singapore and, Iskandar Johor, Malaysia, we are positioned to serve both markets.

Committed to the highest standards of quality, Pipeline\* utilizes shop tested machine welds, gauge thread and grooves, and in-house crane trucks for delivery. All project orders are packed, tagged and bundled in our customized format to for easy guidance and clarity during installation. With our integrated supply chain, Pipeline<sup>®</sup> can provide for your fire pipe needs in a single turnkey package. We are able to maintain consistent product quality and fast delivery to meet tight deadline because all pipe fabrication is done in our environmentally controlled factory using our own direct workers. We do it better by managing every step of the design, grooving, welding process and, delivery and installation for all our pipes.

We can also customise our prefabricated pipes to any design configurations to meet site requirements.

Our exceptional value combined with our outstanding track record, performance quality, managerial and technical expertise are the reasons why Pipeline<sup>®</sup> is preferred by leading brands.

Pipeline® - the Specialist in painted pre-fabricated pipes for all your fire protection needs.

PIPELINE®: YOUR FIRE PROTECTION PIPE SOLUTION

Prefabrication of fire protection pipes is a manufacturing technique used widely in most developed countries, especially in the U.S.A & Europe. Prefabrication offers superior quality, increased productivity and helps to reduce manpower costs.

With standard and custom-to-order configurations, Pipeline<sup>®</sup> pre-fabricated pipes can help you save costs in these areas:

Inventory: Optimize site inventory and material management, control.Manpower: Save on Manpower. Does not require skilled worker to installTime Utilization: Enable better construction planning, efficient manpower utilization:Speed: Fast delivery, handling and installation on-siteNo Delays: Installation won't be delayed by bad weather conditions

For more output, better work quality and manpower savings, use Pipeline® fire protection pipes.

### Our Workflow

- Incoming projects are analyzed by skilled managers and engineers to understand project requirements. AutoCAD is then used to generate engineering drawings before workflow is planned into the workshop.
- Precisely indicate volume of prefabricated pipe work in carbon steel and stainless steel.
- Selectively X-ray and examine weld details to ensure integrity.
- Full weld mapping copy for selected projects. Total assurance of finished quality for clients
- No cost surprises. Priced according to agreed schedule of rates. Upfront clarity on total cost.

### **STANDARD**

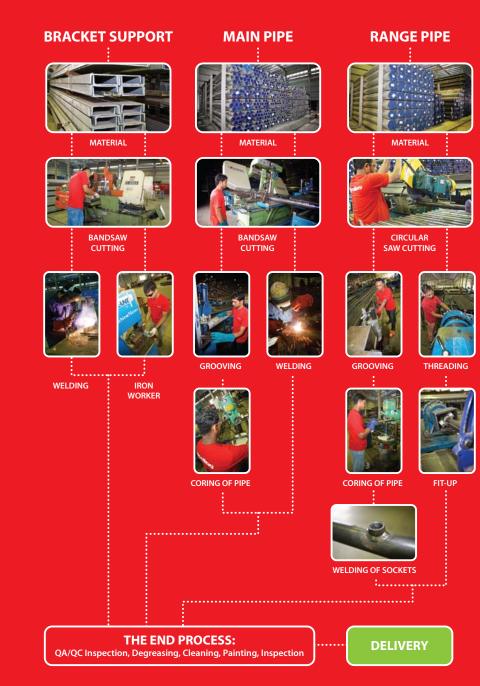
Fire sprinkler system Dry & Wet riser system Hose reel system

### **CUSTOM-TO-ORDER**

Pipe of non-standard configuration as per your construction drawings; For welded & grooved pipe systems, pump header and manifold Controlled valve system, pipe bracket and skid assemblies.

Specialized welding complying with industrial and AWS specifications are available on request.

### **PRODUCTION FLOW CHART**



### **PROCESS FLOW CHART**

### INSPECTION OF RAW MATERIALS

Raw materials are inspected for corrosion, dents and bends. Vernier caliper and measuring tape are used to inspect the outside diameter and thickness of the pipes. Mill certificates are reviewed and filed for future reference. Key vendors for raw material are pre-qualified and those with ISO Certification are preferred.

#### MATERIAL STORAGE

All materials are stored indoors to ensure good quality of materials and easy inventory.

#### DIMENSION LAYOUT, CUTTING & BEVELING

Mechanical methods involve the use of saws, abrasive discs, lathes, and pipe-cutting machines or tools. Thermal methods mainly involve use of oxy-acetylene gas cutting.

#### **FABRICATION METHODS**

#### Grooving

Roll groove is achieved by placing the pipe end in **VICTAULIC** grooving machine & rolling (mechanically deforming) a groove into the pipe.

VICTAULIC groove tape will be used to measure groove depth after cutting and grooving.

### Welding

TIG or MIG welding constitutes the bulk of the work involved in fabrication of modern piping systems. Each welders shall be qualified to ensure the quality of welding. Welding shall be done in accordance to Welding Procedure Specification (WPS), which lists the various parameters to be used. Each weld joint should be carefully aligned within required tolerances using alignment fixtures.

#### Threading

Threading shall be done in accordance to relevant code such as (ASME B1.20.1, BS21) with HMV threading machines.

### **QA/QC INSPECTION**

Inspection in accordance with the ISO 9001:2008 QA/QC standards. Any non-conformance shall be evaluated and/or corrected.

### **FINAL PROCESS**

#### PAINTING and INSPECTION

 Fabricated pipe spools/supports shall be painted in accordance with our factory standard PIPELINE® Multi Shield Epoxy Paint (Red/White - paint thickness 80~100 micron)
 Paint inspection and acceptance criteria shall be in accordance with QA/QC standards.

#### • PACKING AND DELIVER'

Packing and delivery shall be done in accordance to factory packing and delivery procedure

#### Pipeline's Preferred Brand for Mechanical Couplings:

Pipeline Distribution is the distributor for Victaulic in Singapore & Malaysia. Victaulic the world leader in grooved and plain-end mechanical pipe joining systems, was founded in New York City in 1919 to market a radical new concept in the piping industry – a mechanical, bolted coupling that would engage into grooves on the pipe ends and feature a gasket seal. For more than 95 years, the company's enthusiasm for crafting unconventional solutions has allowed it to forge new paths as it tackles the industry's most unique challenges.

The grooved piping method – which dramatically reduces the amount of installation time and reduces total installation cost as compared to welding, threading or flanging – is now the predominant global method for assembly of sprinkler system piping. In fact, Victaulic received the world's first UL Listing for a grooved coupling to be used in fire protection systems back in 1952.

#### Pipeline & the Victaulic Approach:

What began as simply a faster, easier and more economical way of joining pipe has evolved into a whole new approach to solving piping problems – a "total systems" approach.

Specific to the fire protection market, Victaulic offers a full range of FireLock\* branded products including FireLock NXT\* devices, FireLock valves, FireLock EZ\* Installation-Ready<sup>114</sup> couplings, FireLock fittings, FireLock automatic sprinklers for virtually any application, support equipment and pipe grooving tools that provide efficient, cost-effective system design and installation solutions for any kind of fire protection application.

### FireLock<sup>®</sup> EZ Installation-Ready<sup>™</sup> Coupling

\* Unique Installation-Ready technology allows for coupling installation without disassembling the coupling

- \* Up to twice as fast as traditional break-apart couplings
- \* No loose parts to drop and lose during installation reduces onsite risk
- \* Easy visual verification of correct installation





### **Others VICTAULIC PRODUCTS :**

### **Mechanical-T® Outlet**

- \* Available with grooved or threaded outlet in a range of sizes
- \* Provides a direct branch connection at any pipe location where a hole can be cut
- \* A "holefinder" locating collar secures the outlet permanently into position

FireLock<sup>®</sup> Devices \* Available with wet, deluge and pre-action trim

 Valves come pre-trimmed or with VicQuick Riser assembly for fast, out-of-the-box installation **FireLock® Sprinklers** 

residential

Sprinklers for a full range of applications

including commercial, storage and

\* Smallest footprint on the market – increases billable space Pipe are tested by PSB (Singapore), EN and comply to NFPA 13/15, CP 29/52, MS 1489/1910

### PIPELINE PIPE SPECIFICATION ASTM A53 API ERW STEEL PIPES

NOM. SIZE	OUTSIDE DIA.	WALL THIC	KNESS (mm)	WEIGH	T (kg/m)	GROOVE	NPT Thread	
DN	(mm)	SCH 20	SCH 40	SCH 20	SCH 40	Dia.(mm)	Lenght (mm)	
25	33.4	NA	3.38	NA	2.50	30.2	14.3	
32	42.2	NA	3.56	NA	3.39	39.0	18.0	
40	48.3	NA	3.68	NA	4.05	45.1	18.4	
50	60.3	NA	3.91	NA	5.44	57.2	19.2	
65	73.0	NA	5.16	NA	8.63	69.1	NA	
80	88.9	NA	5.49	NA	11.49	84.9	NA	
100	114.3	NA	6.02	NA	16.07	110.1	NA	
150	168.3	NA	7.11	NA	28.26	164.0	NA	
200	219.1	6.35	8.18	33.31	42.58	214.4	NA	
250	273.0	6.35	9.27	41.75	60.29	268.3	NA	
300	323.8	6.35	10.30	49.71	79.65	318.3	NA	
350	355.6	7.92	11.13	67.9	94.49	350.0	NA	
400	406.4	7.92	12.70	77.83	123.29	400.8	NA	

### EN 10255 Formerly known as BS 1387:1985

NOM. SIZE	OUTSIDE DIA.	WALL THIC	KNESS (mm)	WEIGHT (kg/m)		GROOVE	NPT Thread
DN	Max. (mm)	Medium	Heavy	Medium	Heavy	Dia.(mm)	Lenght (mm)
25	34.2	3.2	4.0	2.42	2.94	30.2	11
32	42.9	3.2	4.0	3.10	3.80	39.0	11
40	48.8	3.2	4.0	3.57	4.38	45.1	11
50	60.8	3.6	4.5	5.03	6.19	57.2	11
65	76.6	3.6	4.5	6.43	7.93	69.1	11
80	89.5	4.0	5.0	8.37	10.33	84.9	NA
100	114.9	4.5	5.4	12.16	14.48	110.1	NA
150	166.1	5.0	5.4	19.74	21.27	164.0	NA

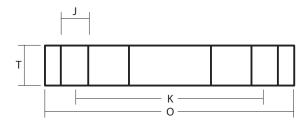
### JIS G3452 Carbon Steel Pipes

NOM. SIZE	OUTSIDE DIA.	WALL THICKNESS (mm)	WEIGHT (kg/m)	GROOVE Diameter Max.	
DN	Max. (mm)	(mm)	kg/m	(mm)	
200	216.3	5.8	30.1	214.4	
250	267.4	6.6	42.4	268.3	
300	318.5	6.9	53.0	318.3	
350	355.6	7.9	67.7	350.0	
400	406.4	7.9	77.6	400.8	

### EN 545 Ductile iron Pipes (Tyton Socket Joint, Class K9)

NOM. SIZE	OUTSIDE DIA.	WALL THICKNESS (mm)	WEIGHT (kg/m)	Max. Field Hydrostatic	
DN	(mm)	(mm)	kg/m	Test pressure	
100	118	6.1	15.83	45 bars	
150	170	6.3	24.00	45 bars	
200	222	6.4	24.00	45 bars	
250	274	6.8	40.20	45 bars	

## **FLANGES** SPECIFICATION



### ANSI 150 LBS FLAT FACE PLATE FLANGES

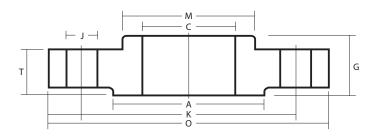
NOMINAL PIPE SIZE	OUTSIDE DIAMETER, O (mm)	THICKNESS T (mm)	PCD K (mm)	No. of Bolt Holes	Dia. of Bolt Hole J (mm)	Pressure rating (PSI)
25	108	14	79.4	4	15.9	150
32	117	16	88.9	4	15.9	150
40	127	16	98.4	4	15.9	150
50	152	18	120.7	4	19.1	150
65	178	18	139.7	4	19.1	150
80	191	18	152.4	4	19.1	150
100	229	18	190.5	8	19.1	150
150	279	22	241.3	8	22.2	150
200	343	22	298.5	8	22.2	150
250	406	24	362.0	12	25.4	150
300	483	26	431.8	12	25.4	150
350	533	28	476.3	12	28.6	150
400	597	31	539.8	16	28.6	150

### PN16 FLAT FACE PLATE FLANGES

NOMINAL PIPE SIZE	OUTSIDE DIAMETER, O (mm)	THICKNESS T (mm)	PCD K (mm)	No. of Bolt Holes	Dia. of Bolt Hole J (mm)	Pressure rating (PSI)
25	115	16	85	4	14	16
32	140	16	100	4	18	16
40	150	16	110	4	18	16
50	165	18	125	4	18	16
65	185	18	145	4	18	16
80	200	20	160	8	18	16
100	220	20	180	8	18	16
150	285	22	240	8	22	16
200	340	24	295	12	22	16
250	405	26	355	12	26	16
300	460	28	410	12	26	16
350	520	30	470	16	26	16
400	580	32	525	16	30	16

## **FLANGES** SPECIFICATION

ASTM A105 ASME B16.5 (Forged Steel Flange)



### CLASS 150 SLIP-ON RAISED FACE (SORF)

NOMINAL PIPE SIZE	OUTSIDE DIAMETER, O (mm)	INTERNAL DIA.C (mm)	THICKNESS T (mm)	TOTAL THICKNESS G (mm)	DIA OF HUB AT BASE M (mm)	DIA OF RAISED FACE A (mm)	PCD K (mm)	NO. OF BOLT HOLES	DIA. OF BOLT HOLES J (mm)	PRESSURE RATING (PSI)
25	110	34.5	14.3	17.6	49	50.8	79.4	4	15.9	285
32	115	43.2	15.9	20.6	59	63.5	88.9	4	15.9	285
40	125	49.5	17.5	22.6	65	73.0	98.4	4	15.9	285
50	150	61.9	19.1	25.6	78	92.1	120.7	4	19.1	285
65	180	74.6	22.3	28.6	90	104.8	139.7	4	19.1	285
80	190	90.7	23.9	30.6	108	127.0	152.4	4	19.1	285
100	230	116.7	23.9	33.6	135	157.2	190.5	8	19.1	285
150	280	170.7	25.5	39.6	192	215.9	241.3	8	22.2	285
200	345	221.5	28.6	44.6	246	269.9	298.5	8	22.2	285
250	405	276.2	30.2	49.6	305	323.8	362.0	12	25.4	285
300	485	327	31.8	55.6	365	381.0	431.8	12	25.4	285
350	535	359.2	35.0	57.6	400	412.8	476.3	12	28.6	285
400	595	410.5	36.6	63.6	457	469.9	539.8	16	28.6	285

### CLASS 300 SLIP-ON RAISED FACE (SORF)

NOMINAL PIPE SIZE	OUTSIDE DIAMETER, O (mm)	INTERNAL DIA.C (mm)	THICKNESS T (mm)	TOTAL THICKNESS G (mm)	DIA OF HUB AT BASE M (mm)	DIA OF RAISED FACE A (mm)	PCD K (mm)	NO. OF BOLT HOLES	DIA. OF BOLT HOLES J (mm)	PRESSURE RATING (PSI)
25	125	34.5	17.5	26.6	54	50.8	88.9	4	19.1	675
32	135	43.2	19.1	26.6	64	63.5	98.4	4	19.1	675
40	155	49.5	20.7	30.6	70	73.0	114.3	8	22.2	675
50	165	61.9	23.3	33.6	84	92.1	127.0	8	19.1	675
65	190	74.6	25.5	38.6	100	104.8	149.2	8	22.2	675
80	210	90.7	28.6	42.6	117	127.0	168.3	8	22.2	675
100	255	116.7	31.8	47.6	146	157.2	200.0	8	22.2	675
150	320	170.7	36.6	52.6	206	215.9	269.9	12	22.2	675
200	380	221.5	41.3	61.6	260	269.9	330.2	12	25.4	675
250	445	276.2	47.7	66.6	321	323.8	387.4	16	28.6	675
300	520	327	50.9	72.6	375	381.0	450.8	16	31.8	675
350	585	359.2	54.0	76.6	425	412.8	514.4	20	31.8	675
400	650	410.5	57.2	82.6	483	469.9	571.5	20	34.9	675

### **JIS & ANSI BUTT** WELDING FITTINGS

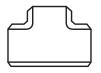




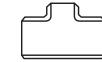


90° Elbow (Long)

90° Elbow (Short)



Equal Tee



**Reducing Tee** 



NOMINAL SIZE (mm)	OUTSIDE DIAMETER	WALL THICKNESS	OUTSIDE DIAMETER		WALL TH	ICKNESS	
(1111)	JIS	SGP	ANSI	STD	SCH 40	SCH 80	SCH 160
25	34	3.2	33.4	3.38	3.38	4.55	6.35
32	42.7	3.5	42.2	3.56	3.56	4.85	6.35
40	48.6	3.5	48.3	3.68	3.68	5.08	7.14
50	60.5	3.8	60.3	3.91	3.91	5.54	8.74
65	76.3	4.2	73	5.16	5.16	7.01	9.53
80	89.1	4.2	88.9	5.49	5.49	7.62	11.13
100	114.3	4.5	114.3	6.02	6.02	8.56	13.49
150	165.2	5.0	168.3	7.11	7.11	10.97	18.26
200	216.3	5.8	219.1	8.18	8.18	12.70	23.01
250	267.4	6.6	273	9.27	9.27	15.09	28.58
300	318.5	6.9	323.8	9.53	10.31	17.48	33.32
350	355.6	7.9	355.6	9.53	11.13	19.35	35.71
400	406.4	7.9	406.4	9.53	12.70	21.44	40.49

### **SPECIFICATION FOR PIPELINE FABRICATED**

RANGE & MAIN PIPES WITH OPTIONAL CHOICE OF FITTINGS;

All Pipes are available in Class 'B', 'C', Galvanized (GI) 'B' & 'C'

#### A) Threaded Range Pipe (Threaded Both Ends)

Pipeline : Fire Pipe Standard : ASTM A53 (DN 25 to 50) / EN10255 (DN 25 to 50) Pipe Schedule : i) ASTM A53 (Standard) ii) EN10255 Medium (Class B) or Heavy (Class C)

#### How to identify parts nos.

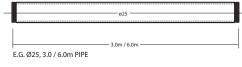
Example No. 1 - Steel Pipe 25 diameter (Class'B') - Part no. 25BB3TBE : 25mm, 32mm, 40mm & 50mm Diameter ø Standard Length : 1m, 1.5m, 2.0m, 2.4m, 3m, 3.6m, 6m Colors : Red, White or Galvanized

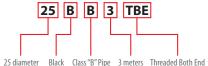
Paint : Pipeline Multi Shield Epoxy Paint (Red / White) Paint Thickness : 80 ~100 micron

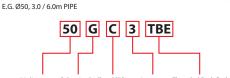
a50

3.0m / 6.0n

Example No. 2 - Steel Pipe 50 diameter (Gl 'C') - Part no. 50GC3TBE : 25mm, 32mm, 40mm & 50mm Diameter ø Standard Length : 1m, 1.5m, 2.0m, 2.4m, 3m, 3.6m, 6m Colors : Red, White or Galvanized







50 diameter Galvanized Class "C" Pipe 3 meters Threaded Both End

Standard : ASTM A53 (DN 25 to 50) / EN10255 (DN 25 to 50) Pipe Schedule : i) ASTM A53 (Standard) ii) EN10255 Medium (Class B) or Heavy (Class C)

: 25mm, 32mm, 40mm & 50mm Diameter ø Standard Length : 1m, 1.5m, 2.0m, 2.4m, 3m, 3.6m, 6m Colors : Red, White or Galvanized



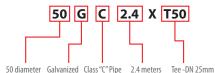
E.G. Ø25, 2.4m, 25 TEE



Paint : Pipeline Multi Shield Epoxy Paint (Red / White) Paint Thickness : 80 ~100 micron

Example No.2 – Steel Pipe 50 diameter (Galvanized 'C') - Part no. 50GC2.4xT50 : 25mm, 32mm, 40mm & 50mm Diameter ø Standard Length : 1m, 1.5m, 2.0m, 2.4m, 3m, 3.6m, 6m Colors : Red, White or Galvanized





PG 13

45° Elbow

CAP

**Eccentric Reducer** 

B) Threaded Range Pipe (c/w fittings on One end) Pipeline : Fire Pipe

How to identify parts nos.

Example No.1 – Steel Pipe 25 diameter (Class B) - Part no. 25BB2.4xT25

#### C) Main Pipe (Grooved Both Ends)

Pipeline : Fire Pipe

 Standard
 : ASTM A53 (DN 65 to 200) / EN10255 (DN 65 to 150) / JIS G3452 (DN 200)
 Paint
 : Pipeline Multi Shield Epoxy Paint (Red / White)

 Pipe Schedule
 : ) ASTM A53 (Standard) iii) 10255 Medium (Class B) or Heavy (Class C) iii) JIS G3452 (Standard)
 Paint Thickness
 : 80 ~100 micron

#### How to identify parts nos.

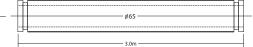
Example No. 1 - Steel Pipe 65 diameter (Class'B') - Part no. **65BB3xGBE** Diameter ø :65mm, 80mm, 100mm, 150mm, 200mm Standard Length :8m and 6m Colors : Red, White or Galvanized

E.G. Ø65, 3.0 WITH 1 NO. SOCKET (PNM-65-02)



65 diameter Black Class "B" Pipe 3 meters Grooved Both End

Example No. 2 - Steel Pipe 65 diameter (Galvanized 'C') - Part no. **50GC3xGBE** Diameter Ø : 65mm, 80mm, 100mm, 150mm, 200mm Standard Length : 3m and 6m Colors : Red, White or Galvanized

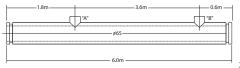


E.G. Ø65, 3.0 WITH 1 NO. SOCKET (PNM-65-02)

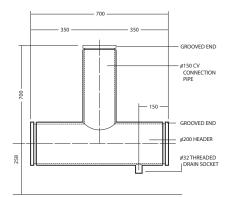


#### How to identify parts nos.

Example – Steel Pipe 65 diameter (Class'B')- Part no. 65BB6xGBEx1.8x3.6x0.6x2532 Diameter ø :50mm, 80mm, 100mm & 150mm Standard Length : 3m and 6m Colors : Red, White or Galvanized



E.G. Ø65, 6.0M @ ODD LENGTH WITH 2 NO. SOCKETS (PNM-65-05)



### D) Main Pipe (Grooved Both Ends c/w Welded Sockets) Pipeline : Fire Pipe

- Implement
   : Fire Pipe

   Standard
   : ASTM AS3 (DN 65 to 200) / EN10255 (DN 65 to 150) / JIS G3452 (DN 200 )

   Pipe Schedule
   :i) ASTM AS3 (Standard)
  - ii) EN10255 Medium (Class B) or Heavy (Class C) iii) JIS G3452 (Standard)
  - : Pipeline Multi Shield Epoxy Paint (Red / White)
- Paint Thickness : 80 ~100 micron



E) Sprinkler Control Valve Manifold with One, Two or

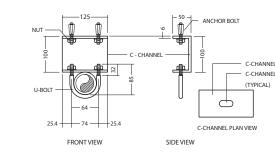
- Three outlets of DN150mm Alarm Valve connection
  Pipeline : Fire Pipe
- ipenine . The tipe

Paint

- Model : 200M-GE-1x150AVGO Standard : EN10255 (DN 150) / JIS G3452 (DN 200) – Outside Diameter: 216mm
- Pipe Schedule : i) ASTM A53 (Standard)
- ii) EN10255 Medium (Class B) or Heavy (Class C) iii) JIS G3452 (Standard)
- Paint : Pipeline Multi Shield Epoxy Paint (Red / White) Paint Thickness : 80 ~100 micron
- How to identify parts nos.

Example – Steel Pipe 200 diameter - Part no. 200M-GE-1x150AVGO Diameter ø : 200mm (DP: 216mm) Standard Length : 0.7m, 1.4m, 2.1m, 2.8m Colors : Red, White or Galvanized





### F) Pipe Support - GI C Channel Bracket c/w U-Bolt

Pipeline: "C" Channel with 4 holes c/w 50 mm "U" boltModel: CB100x50x5x125x4Hx50UB

#### How to identify parts nos.

Example No. 1 - "C" Channel with 4 holes c/w 50 mm "U" bolt - Part no. : **CB100x50x5125x4Hx50UB** Standard: EN100255275JR, EN 100255335JR, JIS G310155400 Standard Length: 125mm, 140mm, 155mm, 185mm, 233mm Material: Galvanized Steel



### Flexible Sprinkler Fitting System & Flexible Dropper





FD25B Flexible Dropper

Pipeline® Flexible Braided Sprinkler Hoses and Fittings for use in Commercial Suspended Ceilings

Pipeline Distribution now carries its very own line of Pipeline® flexible braided sprinkler hoses and fittings.

Designed in accordance with NFPA 13, 13D, and 13R for limited flexible application, Pipeline<sup>®</sup> flexible braided sprinkler hoses are made of premium corrosion resistant stainless steel and come with FM approved certification which certify that our items have been tested to strict conformity with construction standards.

Compared to conventional rigid piping, our flexible braided sprinkler hose enhances work efficiency by 50-70% as they are installed to the ceiling grids and therefore move with the ceiling as they settle, maintaining the ceiling plane.

#### Pipeline<sup>®</sup> flexible braided sprinkler hoses with fittings offer you:

1. Fast and dependable installation, outstanding performance and are much more cost effective during maintenance and retrofit applications.

2. Minimum on-site modifications required. The Dropper bracket reduces jobsite coordination as most ceiling boards can be installed with the bracket already in place. Reduce material handling, up to a third less weight than rigid pipe systems.

3. Easy to install, wide range of sizes to suit your every need. Pipeline® flexible braided sprinkler hoses comes in lengths from 700mm to 1,800mm and with a wide range of mounting brackets. Our specially designed brackets allow for an easy and fast installation even when an unskilled installer performs the task.

Pipeline® flexible braided sprinkler hoses with fittings. The preferred solution for easy installation, manpower savings and cost savings.

Ø200 CONTROL VALVE HEADER WITH ONE Ø150 CV CONNECTION (PNCV - 01) PG **15** 

/w Welded Sockets)

## FABRICATED PIPE

PG **17** 

## PIPELINE PAINT SPECIFICATION

PG

RECOMMENDED USAGE	A two pack multi purpose surface tolerance epoxy coating for the protection of pipe against corrosion
Colour / Texture	Single Red / White
Dry film thickness	100 - 200 micron
Drying time	20 minutes (Touch Dry), 3 Hours (Dry to handle)

## WELDING SPECIFICATION

AWS B2.1 - Specification for Welding Procedure and Performance Qualification

ASME Boiler and Pressure Vessel Code Section IX - Welding and Brazing Qualification

## **OUR** CERTIFICATIONS

PIPELINE Pre-fabricated pipes are manufactured to comply with the requirements of the following specificatios

	TEST	CERTIFICAT	F	PSB Singapore
5			-	
	This Certificate Pipeline Distrib 22 Chin Bee Di Singapore 619	ution (S) Pte Ltd		
	FOR			
	Product:	Black and Galvanized Steel Pipe		
	Brand/Model:	Firepipe		
	Detail:	Galvanized Steel and Black Stee Nominal Sizes (mm) : 32, 40, 50, Galvanized Steel (Class Heavy)	65, 80, 100, and 150	I 150
	Specification:	BS EN 10255 : 2004		
	Test Report:	7191011270-CHM-LSM, 7191008 MEC11-1A-CYW, 7191008628-M CHM11-03-CES and 7191008628	EC11-1B-CYW, 7191008628-	
<u></u>	Date of Test Re	port: 08 Jul 2011, 15 June 2011, 15 2011, 17 Jun 2011	June 2011, 15 June 2011, 9 J	lun
RIC E	Summary			
		product submitted was tested an of the above standard(s).	d was found to comply wit	h the test
<b>UENIILIUAI</b>	A	$\frown$		
-	Vice President TÜV SÜD PSB	(MEC) Pte Ltd		
	Certificate No: 03170	Date of Original Issue: 17 Dec 2013	Date of Last Revision: -	Date of Expiry: 16 Dec 2015
CRIFINAL	of TÜV SÜD PS and conditions of	is part of a full report and should be read in B Pte Ltd and shall be returned upon requ f the Test Certification Scheme. ficate is issued pursuant to the terms set ou	est. The use of this Certificate is sul	emains the property ojected to the terms

### **QUALITY POLICY STATEMENT**

The management and staff of Pipeline® Distribution (M) Sdn Bhd. are committed to ensure enhanced customer satisfaction, as well as continuous improvement of the Quality Management System (QMS).

Compliance with legal and other requirements

- + A COMPETENT AND HIGHLY SKILLED WORKFORCE
- + COMPETITIVE PRICING & HIGHER PRODUCTIVITY THROUGH COST-EFFECTIVE FABRICATION
- **+** GOOD CUSTOMER RELATIONSHIP AND RAPPORT
- **+** COMPLIANCE WITH APPLICABLE LEGAL AND OTHER REQUIREMENTS
- + CONSTANT REVIEW OF OUR QUALITY MANAGEMENT SYSTEM



PG

19

### **Certificate of Registration**

This is to certify that

### Pipeline Distribution (M) Sdn Bhd

No. 11 Jalan Bioteknologi 3 Kawasan Perindustrian SiLC Nusajaya 79200 Johor Darul Takzim

operates a quality management system which has been assessed as conforming to

### ISO 9001:2008

for the scope of activities

### Supply and fabrication of pipe works, assembly of control valves and skids for the fire protection systems.

Certificate No: CIS/100078 Issue Date: 13 June 2013 Valid unfil 12 June 2016 subject to adherence to the agreed ongoing audit programme, successful endorsement of certification following each audit and compliance with CI Regulations

Zalleng

Signed for and on behalf of

Authorised Signatory



. 60 Albert Street #13-03 OG Albert C Complex Singapore 1 1969 Reg. No.: 199409508

N

TÜV SÜD PSB Pte Ltd • 1 Science Park Drive . Singapore 118221

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## **FM Approval for Pipeline Flexible Sprinkler Hose Systems**



FM Approvals

Member of the FM Global Group

### **Certificate of Compliance**

This certificate is issued for the following: FLEXIBLE SPRINKLER HOSE WITH THREADED END FITTINGS FOR USE IN COMMERCIAL SUSPENDED CEILINGS MODEL FD25B Prepared for PIPELINE DISTRIBUTION (M) SDN BHD NO 11 JALAN BIOTEKNOLOGI 3 KAWASAN PERINDUSTRIAN SILC NUSAJAYA 79200 JOHOR DARUL TAKZIM

MALAYSIA

FM Approvals Class: 1637

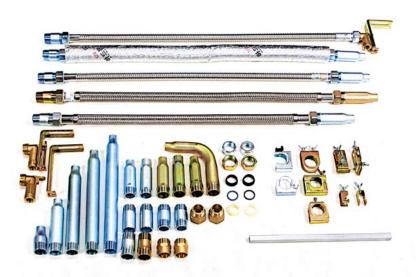
Approval Identification: 3055013 Approval Granted: March 19, 2015

"To verify the availability of the Approved product, please refer to www.approvalguide.com

Said Approval is subject to satisfactory field performance, continuing Surveillance Audits, and strict conformity to the ructions as shown in the Approval Guide, an online resource of FM Approvals

1 Alma

Richard B. Dunne Manager -Fire Protection FM Approvals 1151 Boston-Providence Turnpike orwood, Massachusetts 02062 USA



## **PROJECT** REFERENCES

Pipeline® is proud to have delivered many fire protection pipe solutions to our valued clients. Across industries, our superior product is used in our projects in Malaysia, Singapore, Thailand and Vietnam.

### SINGAPORE

### **COMMERCIAL BUILDINGS** Somerset 313 Fusionopolis Great World City Singapore Post Centre Paragon Shopping Centre Vivocity **Republic Plaza OCBC** Centre Habourfront Mall

**OFFSHORE & MARINE** 

Petrobras MV 18,20,22

**Bunga Orkid Project** 

**Dragon Tortoise Gas** 

**Kumang Cluster** 

**Belanak FSO** 

SIA Hanger 1 SIAEC Hanger 3 Changi Airport Control Tower Changi Airport Terminal 1 Changi Airport Terminal 1&2 (Finger Pier)

Senoko Power Station Seraya Power Plant

#### **POWER PLANT**

Ayer Rajah Sub Station Marina Barrage Sub Station

**Crown Prince Hotel** King Centre Hotel Rendezvous Shangri-La Hotel **Premier Apartment INTEGRATED RESORTS / CASINO** Marina Bay Sands **Resort World Singapore** 

Singapore General Hospital National Eye Centre **Thomas Medical Extension Ren Ci Hospital** Novena Parkway Hospital

### MALAYSIA

Biocon (M+W Group) at SiLc Aircraft Hangar at Senai Airport Summerscape Condominium Connoisseur Tower Condominium Toyo-Thai Corporation PCL, (PSB Gebang Solar Power Plant) **Titan Tpp Plant** Tanjung Langsat Oil Terminal Kinabalu NAG Development Project

### **OVERSEAS PROJECTS**

### **THAILAND (PPOG)**

### Onshore Compressor Station No.4 in Map Tha Phut PTTGC Heavy Gas to Olefins Plant - FM200 System PTT Saiyok compressor station #4 - Fire Alarm System PTTGC Phenol II Plant - Fire Fighting & CO2 System Power Plant at Navanakorn Industrial - Gas Detection PTTGC Heavy Gas to Olefins Plant - Fire Alarm Equipment IRPC UHV Plant - Inergen System Pipe & Fittings

AES - VCM Mong Duong Power Company Limited Tan Son Nhat International Airport Dinh Vu Jetty in Dinh Vu Industrial Zone (DVIZ)

### Sedona Hotel Project

IBMS, Siddhirganj Power Plant Banglasdesh