Safetyman

PIPEMARKERS.

AS1345

CELEBRATING 80 YEARS OF SERVICE

PHONE: 1300 781 288
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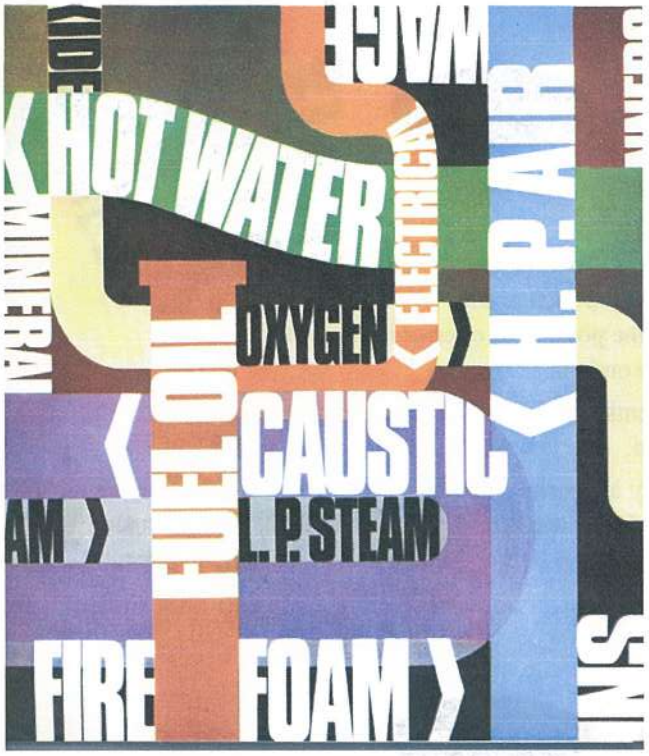
Safetyman

Meet our Director

Rod MacKenzie has been engaged in safety and fire protection for more than forty years. He is a Chartered Professional Engineer, a Past President of the Australasian Chapter of the Society of Fire Protection Engineers and a Member of the Institution of Engineers, Australia. He also holds a Bachelor of Commerce degree.

He has been a director of Safetyman since 1974 and he has had a long association with Standards Australia as a member of several committees. In particular, he has been a member of the Committee for AS1345 for more than thirty years so that he has a detailed knowledge of the problems encountered in the development of a workable pipeline identification system. We are indebted to him for the brief history of pipemarking on page 15



Welcome to Safetyman

Ours is a Company in which exciting ideas and modern methods are coupled with more than eighty years of practical experience. We are committed to excellence in all of our endeavours. Our aim is to be at the forefront in innovation and design and second to none in quality, knowledge and service. For over three quarters of a century, we have been guided by these principles.

The patents, registered designs and copyright graphics held by the Company attest to original thinking by generations of Safetyman people. The standard design of pipemarkers, in use today, follows the original Safetyman Registered Design, made universally available by the Company and incorporated into the Australian Standard.

Safetyman is proudly 100% Australian owned and operated; one of the few remaining Australian companies in the industry. Moreover, we are recognized as good corporate citizens. This is evidenced by the committees of Standards Australia on which we have served, the number of apprentices we have trained and the support we have offered to industry based associations.

Compliance with Standards, Codes and Regulations is an absolute priority at Safetyman. We realize that our customers cannot be expected, nor can they afford the time to be researching the multitude of graphical requirements imposed on industry by governments and other authorities. We keep ourselves informed so that you do not have to worry.

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WHY IDENTIFY!

Safetyman

* In emergency, it is essential to know the contents of all pipes, particularly so for fire service personnel.
* Using an international standard means that staff, permanent, temporary and casual, together with external contractors and emergency personnel are not confused and the possibility of error is minimized. Time is not wasted searching for pipes and conduits.
* Eliminates the need to remember pipe contents with its risk of error and dependence upon key staff who may not be available when needed.
* Pipeline identification is mandatory in many industrial situations. For example, pipes carrying any type of dangerous goods must be identified under WorkCover regulations. There are many standards, codes and laws demanding identification so that prudent practice is simply to identify.
* Enhances the orderliness of operations.
* Creates an impression of efficiency.

WHY SAFETYMAN MARKERS!

Safetyman

* Safetyman, the originator of self-adhesive pipemarkers, in Australia, has been making and supplying pipe identification systems for more than forty years. A business does not continue to supply a knowledgeable market, for all of those years, unless the product meets all of the demands made upon it. Only premium quality materials, with a special aggressive, adhesive system, are employed in Safetyman production. Markers continue to look bright and fresh year after year and many that were made and supplied forty years ago are still giving valuable service.
* Guard against inferior copies; cheap vinyl material looks much the same when new, but months and years later the differences are very apparent.
* Safetyman markers are Standards compliant. Beware, sub-standard copies. Unfortunately, some available in the marketplace simply, do not comply and this could leave you vulnerable in a mandatory situation.
* All Safetyman pipemarkers are supplied with a slit liner paper that assists application, making it quick, easy and cost effective.
* Comprehensive stockholdings can usually meet urgent demands

Safetyman markers are generally supplied in substantial, protective boxes to keep them safe until needed for use. Construction sites and tradesmen's trucks are hazardous locations for unused pipemarkers.

Safetyman Pipe Identification System

The Safetyman system of pipemarking, based originally, on the International Standards Organization Recommendation, R508-1966, and developed by Safetyman in 1967, has stood the test of time, with the original Safetyman Registered Design now incorporated into the subsequent Australian Standard, AS1345

These flexible, self sticking, vinyl markers go on easily, they bond into place and they last. The bright identification colours resist fading and they stand out against any background. With this system, all pipes and ducts can be painted in the one colour; resulting in, not only enchanced appearance but considerable economy.

Supplementary safety colour signal being applied, centrally on steam marker, to indicate hazardous nature of contents


Methods of marking small bore pipes

The Safetyman system is easier, quicker and less costly in application. Moreover, it is more durable, smarter and more effective than former methods of identification. Because the markers may be applied by unskilled personnel, the system is universally suitable, no matter how remote the location, no matter how small the job.
The system is designed to comply with AS1345, Specialist markers are available to comply with AS2896 (Medical) and the former AIP CP5-2003
(Oil Industry). CP5 is now superseded by AS4977-2008 which is CP5 as adopted by Standards Australia. Markers are supplied in convenient, protective boxes to ensure that they reach the site in perfect condition and, if not used, leave it again, ready for the next job, in the same condition.

Removing the unwanted chevron, before erection

Supplementary flow indicator being applied in a manner to conceal unwanted chevron

Marker Selection

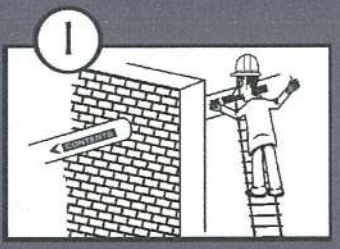
OUTSIDE DIAMETER OF PIPE	75mm AND OVER	BETWEEN 40mm and 75mm	UP TO 40mm
MARKER TYPE	TYPE L	TYPE S	TYPE T

Safety Signals. These are applied in appropriate circumstances, to the pipemarker to indicate the special properties of the contents. They can be applied centrally or at either end of the marker, covering the unwanted chevron. (PACKETS OF 10)

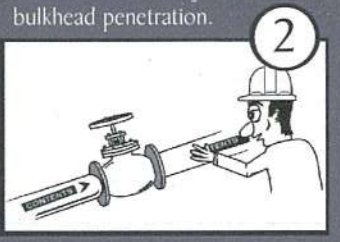
PIPELINE CONTENTS	SIGNAL	TYPE L	TYPE S	TYPE T
FIRE FIGHTING MATERIALS		XM3R	XM31R	XM32R
DANGEROUS MATERIALS		XM3Y	XM31Y	XM32Y
IONIZING RADIATION		XM3A	XM31A	XM32A
BIOMEDICAL HAZARD		XM3H	XM31H	XM32H
FOR HUMAN CONSUMPTION		XM3B	XM31B	XM32B
FLOW MARKER	F	XM2F	XM21F	
RETURN MARKER	R	XM2R	XM21R	

Supplementary Directional Arrows used between markers to supplement flow indications

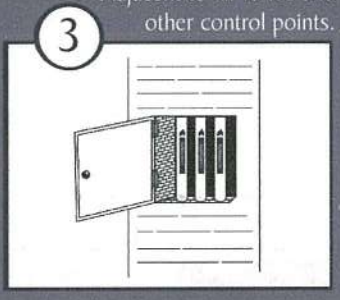
SIZE	CAT No		
90 x 30mm	XM 71	PACKETS OF 10	
180 x 60mm	XM 7	PACKETS OF 10	



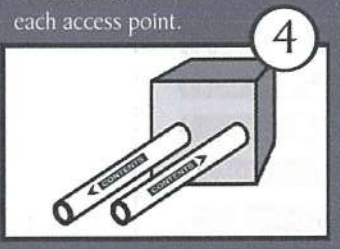
On both sides of any wall or bulkhead penetration.



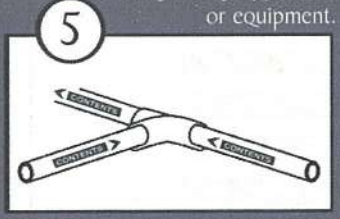
Adjacent to all valves and other control points.



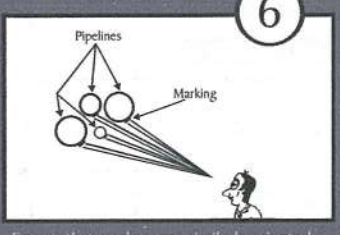
In riser ducts at each access point.



At entry to any appliances or equipment.



Adjacent to all junctions.



Ensure that markers are similarly oriented towards likely observer locations. If the position can be approached from two directions apply markers on both sides. Maximum marker spacing on straight runs :8m

FIRE

AS1345 IDENTIFICATION OF THE CONTENTS OF PIPES, CONDUITS AND DUCTS

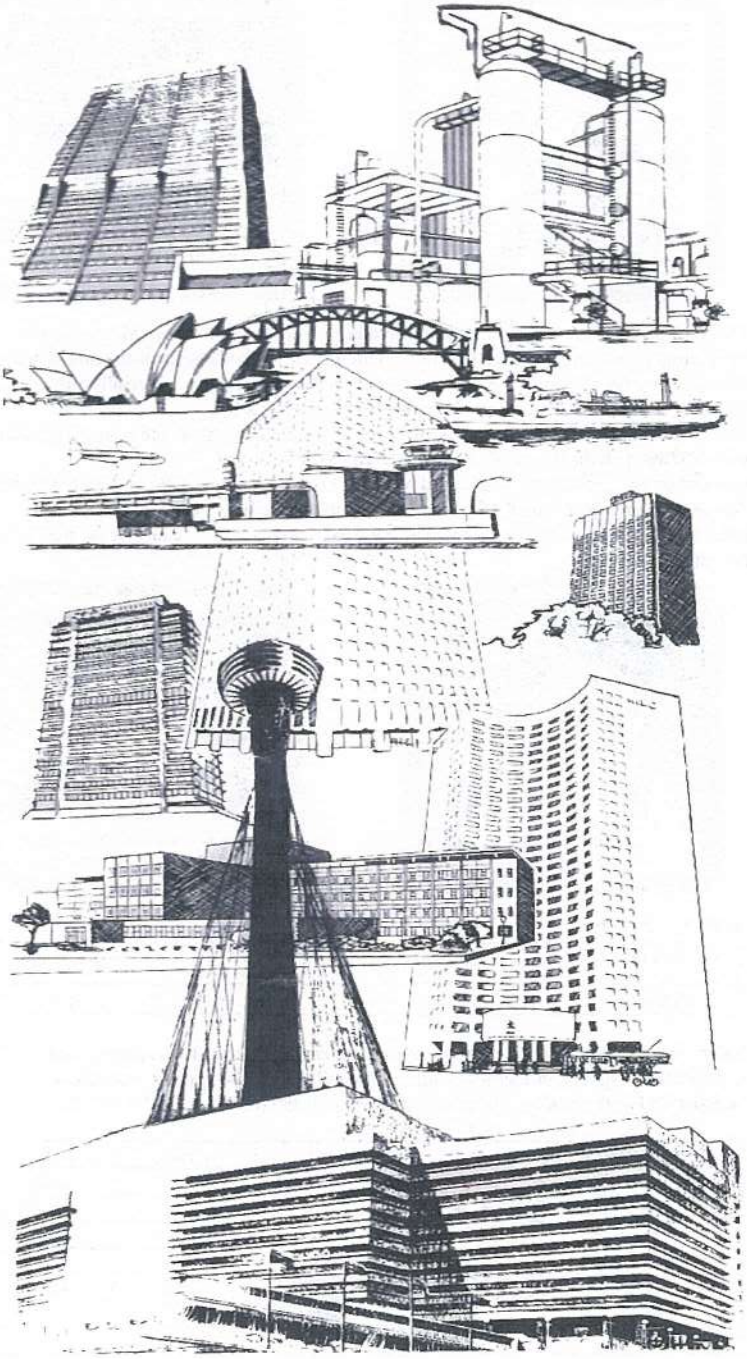
This is the Standard called up in a number of Codes and in legislation, to identify piping installations.

For example, a hydrant installation, to comply with the Building Code of Australia, must be installed in accordance with AS2419.1, the Australian Standard Hydrant Code.

In turn, AS2419.1 requires all pipework to be identified in accordance with AS1345.

That is, unless a hydrant installation has all pipework identified in accordance with AS1345, it does not comply with the Building Code.

MANDATORY IN MANY INSTALLATIONS



MARKER SELECTION

OUTSIDE DIAMETER OF PIPE	75mm and OVER	BETWEEN 40mm and 75mm	UP to 40mm
MARKER TYPE	TYPE L	TYPE S	TYPE T

STANDARD, SELF- ADHESIVE PIPE MARKERS
PACKETS OF 10

LEGEND	TYPE L	TYPE S	TYPE T
CARBON DIOXIDE	PR09	PR091	
FIRE ALARM	PR04	PR041	PR042
FIRE DETECTION SYSTEM DO NOT PAINT			PR252
FIRE FIGHTING WATER	PR21	PR211	PR212
FIRE FOAM	PR07	PR071	
FIRE HOSE REELS	PR23	PR231	PR232
FIRE HYDRANT	PR18	PR181	
FIRE SERVICE	PR16	PR161	PR162
FIRE SPRINKLERS	PR20	PR201	PR202
FIRE SPRINKLERS DRY		PR221	
HALOCARBON		PR021	PR022
HYDRANT WATER	PR08	PR081	
INERT GAS	PR39		
EMERGENCY LIGHTING			P0182
PRE-ACTION SPRINKLERS	PR29	PR291	
WATER MIST	PR27	PR271	

*AS1940 SPECIAL MARKERS *AS4977

FOAM CONCENTRATE	PP191		
FOAM SOLUTION	PP201		
FIRE	PP131		

* AS1940, AUSTRALIAN STANDARD: THE STORAGE AND HANDLING OF FLAMMABLE AND COMBUSTIBLE LIQUIDS.
*AS4977, AUSTRALIAN INSTITUTE OF PETROLEUM CODE OF PRACTICE CP5 ADOPTED BY STANDARDS AUSTRALIA AS *AS4977

DRAINAGE

LEGEND	TYPE L	TYPE S	TYPE T
DRAINS	PK01	PK011	
DIRTY WATER	PK92		
EFFLUENT	PK75	PK751	PK752
FLOOR DRAINAGE	PK89		
GREASE VENT	PK81	PK811	
GREASE WASTE	PK79	PK791	
LAB WASTE			PK372
PUMPED DRAINAGE	PK53		
RADIO-ACTIVE WASTE		PK291	
SEWAGE	PK03	PK031	
SOIL	PK13	PK131	
SOIL VENT	PK31	PK311	
TRADE WASTE	PK77	PK771	
VENT	PK21	PK211	
WASTE	PK15	PK151	PK152

LEGEND	TYPE L	TYPE S	TYPE T
FOUL GAS	PT63		
LP GAS	PT15	PT151	PT152
NATURAL GAS	PT17	PT171	PT172
NATURAL GAS 100 kPa	PT35	PT351	PT352
NATURAL GAS 2.75 kPa		PT711	
NATURAL GAS 210 kPa	PT73	PT731	
TOWN GAS	PT19	PT191	PT192
VENT	PT49	PT491	PT492

LEGEND	TYPE L	TYPE S	TYPE T
COMPRESSED AIR	PE62	PE621	PE622
FEMALE AMENITIES EXHAUST	PE95		
INSTRUMENT AIR	PE64	PE641	PE642
MALE AMENITIES EXHAUST	PE93		
MEDICAL SUCTION	PE86	PE861	
VENT	PE78	PE781	

PLUMBING

GAS FITTING

LEGEND	TYPE L	TYPE S	TYPE T
ALTERNATIVE WATER SUPPLY NOT FOR DRINKING	PG93	PG931	
BORE WATER	PG38	PG381	
CHILLED DRINKING WATER	PG24	PG241	PG242
CHILLED WATER	PG02	PG021	PG022
CHILLED WATER FLOW	PG13	PG131	
CHILLED WATER RETURN	PG07	PG071	
COLD WATER	PG52	PG521	PG522
COOLING WATER	PG60	PG601	PG602
DOMESTIC COLD WATER	PG09	PG091	PG092
DOMESTIC HOT WATER	PG10	PG101	PG102
DOMESTIC WATER	PG11	PG111	PG112
DRAIN WATER	PG94	PG941	PG942
DRINKING WATER		PG431	PG432
EFFLUENT	PG53	PG531	PG532
FILTERED WATER	PG40	PG401	PG402
FRESH WATER	PG34	PG341	PG342
HEATING WATER	PG25	PG251	PG252
HIGH PRESSURE HOT WATER	PG49	PG491	PG492
HIGH TEMPERATURE HOT WATER	PG12	PG121	
HOT ABLUTION WATER	PG75		
HOT WATER	PG54	PG541	PG542
LAB WATER			PG772
LOW TEMPERATURE HOT WATER	PG51	PG511	PG512
MAKE UP WATER	PG08	PG081	PG082
NON-POTABLE WATER	PG80	PG801	PG802
NON POTABLE HOT WATER	PG87	PG871	PG872
NON POTABLE COLD WATER	PG83	PG831	PG832
POTABLE WATER	PG78	PG781	PG782
RAINWATER	PG82	PG821	PG822
RECLAIMED WATER NON POTABLE	PG88	PG881	
SOLAR HOT WATER		PG911	
STORM WATER	PG42	PG421	
TEMPERED WATER		PG221	PG222
TOWN MAIN WATER	PG04	PG041	PG042
WASTE WATER	PG46	PG461	
WATER	PG56	PG561	PG562
WELL WATER	PG14	PG141	

IF WHAT YOU NEED IS NOT SHOWN ON THIS PAGE,
CHECK THE MASTER LIST ON PAGE 9

WATER TREATMENT

PART NUMBERS APPLY TO PACKETS OF 10 MARKERS

LEGEND	TYPE L	TYPE S	TYPE T
CONCENTRATED BLACK LIQUOR	PK49		
DIGESTED SLUDGE	PK43		
DRAINS	PK01	PK011	
EFFLUENT	PK75	PK751	PK752
NUTRIENTS		PK841	PK842
PUMPED DRAINAGE	PK53		
RAW GREEN LIQUOR	PK57		
RAW SLUDGE	PK35	PK351	
RAW SLUDGE BY- PASS	PK55		
RECIRCULATED SLUDGE	PK63		
RECLAIMED EFFLUENT	PK61		
RECLAIMED SEWAGE	PK59	PK591	
RETURN ACTIVATED SLUDGE	PK65		
SCUM	PK51		
SEWAGE	PK03	PK031	
SLUDGE TRANSFER	PK67		
STRONG BLACK LIQUOR	PK69		
THICKENED SLUDGE	PK71		
WASTE	PK15	PK151	PK152
WASTE ACTIVATED SLUDGE	PK47		

LEGEND	TYPE L	TYPE S	TYPE T
ALTERNATIVE WATER SUPPLY NOT FOR DRINKING	PG93	PG931	
DE-GASSED WATER	PG72	PG721	
DE-IONIZED WATER	PG31	PG311	PG312
DEMINERALIZED WATER	PG48	PG481	PG482
EFFLUENT	PG53	PG531	PG532
FILTERED WATER	PG40	PG401	PG402
NON POTABLE WATER	PG80	PG801	PG802
OVERFLOW	PG96	PG961	
POTABLE WATER	PG78	PG781	PG782
PROCESS WATER	PG05	PG051	PG052
PURIFIED WATER		PG981	PG982
RAW WATER	PG63	PG631	
SAMPLE WATER	PG70	PG701	PG702
TREATED WATER	PG99	PG991	PG992

SEWAGE TREATMENT

Water treatment inevitably involves the handling of dangerous goods. This necessitates the provision of placarding in accordance with State legislation, pipemarking in accordance with the Australian Standard and first aid facilities for use following a possible mishap.

LEGEND	TYPE L	TYPE S	TYPE T
ACID	PM02	PM021	
ALKALI	PM04	PM041	PM042
ALUM		PM561	PM562
CHEMICAL DOSING	PM12	PM121	
CHEMICAL EFFLUENT	PM36		
CHLORINE SOLUTION		PM581	PM582
CITRIC ACID		PM241	
DILUTE ACID	PM20	PM201	PM202
FLOCCULANT		PM281	
PICKLE LIQUOR		PM501	
POLYELECTROLYTE		PM341	
SODIUM FLUORIDE		PM521	PM522
SODIUM HYDROXIDE	PM26	PM261	
SODIUM HYPOCHLORITE		PM981	PM982
SULPHURIC ACID	PM10	PM101	PM102

LEGEND	TYPE L	TYPE S	TYPE T
AERATION AIR	PE84	PE841	
AGITATION AIR	PE79		
COMPRESSED AIR	PE62	PE621	PE622
GENERAL PURPOSE AIR	PE80	PE801	
INSTRUMENT AIR	PE64	PE641	PE642
AIR SCOUR	PE81		

LEGEND	TYPE L	TYPE S	TYPE T
GASEOUS CHLORINE	PT21	PT211	PT212
LIQUID CHLORINE		PT431	PT432

MARKER SELECTION

OUTSIDE DIAMETER OF PIPE	75mm and OVER	BETWEEN 40mm and 75mm	UP to 40mm
MARKER TYPE	TYPE L	TYPE S	TYPE T

STANDARD SHOWERS
INDOOR & SHADED LOCATIONS

Safetyman

DC020
SHOWER & EYE WASH
WITH FOOT PEDAL

DC045
SHOWER & EYE WASH

DC180
SHOWER & FACE WASH

DC165
SHOWER & FACE WASH
WITH FOOT PEDAL

EMERGENCY DELUGE SHOWERS

Emergency deluge showers are an essential adjunct to any handling or storing facility employing Dangerous Goods.
The Safetyman range of standard showers may be used in indoor and shaded locations and for exposed, outdoor locations, Comfortcool units are recommended. Standard showers, subject to solar radiation, compound the hazard of chemical splash. After an hour or two in the sun, the contained water can be heated to dangerous levels; so that a person seeking relief from chemical splash can be scalded as well. Comfortcool solves this problem, keeping the contained water cool under the most severe climatic conditions.

Because shower water heating represented such an acute industrial problem, there was immediate acceptance of the Comfortcool system. This unique, patented solution was accorded the Australian Design Award and take into the permanent collection of the Power House Museum in Sydney. Comfortcool units are now giving valuable service in countries throughout the world.

For the full range of Safetyman showers and for a detailed explanation of the Comfortcool system, ask for a brochure.

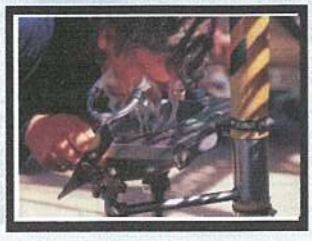
COMFORTCOOL™
OUTDOOR EXPOSED LOCATIONS

DC020C
COMFORTCOOL
SHOWER & EYE WASH
WITH FOOT PEDAL

DC045C
COMFORTCOOL
SHOWER & EYE WASH

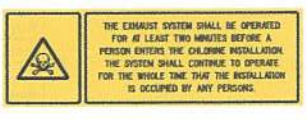
DC180C
COMFORTCOOL
SHOWER & FACE WASH

DC165C
COMFORTCOOL
SHOWER & FACE WASH
WITH FOOT PEDAL



HAZCHEM

These are some examples of the storage placarding required under dangerous goods legislation. Your Safetyman representative can explain and provide your requirements. Also, ask for a copy of the Safetyman Data Sheet covering Dangerous Goods Storage and Handling.



Safetyman

STANDARD PIPEMARKERS

GENERAL CLASSIFICATION	LEGEND	SAFETY SIGNAL*	CATALOGUE No. (Pkt of 10) Type L 460 X 57	Type S 460 X 29	Type T 89 X 460
AIR (Light Blue)	Aeration Air		PE84	PE841	
	Agitation Air		PE79		
	Air Extraction		PE97		
	Air Receiver		PE83		
	Air Scour		PE81		
	Amenities Supply Ventilation		PE91		
	Channel Air		PE87	PE871	
	Compressed Air	▨	PE62	PE621	PE622
	Dewatering Air		PE85	PE851	PE852
	Dry Compressed Air	▨	PE94		
	Female Amenities Exhaust		PE95		
	General Purpose Air		PE80	PE801	
	H.P. Air	▨	PE70	PE701	
	H.P. Instrument Air	▨			PE902
	H.P. Unit Air	▨			PE922
	Instrument Air	▨	PE64	PE641	PE642
	L.P. Air		PE72	PE721	PE722
	L.P. Instrument Air				PE772
	Male Amenities Exhaust		PE93		
	Medical Breathing Air		PE68	PE681	**
	Medical Suction		PE86	PE861	**
	Medical Vacuum			PE661	**
	Plant Air	▨	PE82	PE821	
	Return Air		PE99	PE991	
	Service Air	▨	PE88	PE881	PE882
	Starting Air	▨	PE74	PE741	
	Station Compressed Air	▨	PE96	PE961	PE962
	Supply Air		PE89	PE891	
	Vacuum		PE76	PE761	PE762
	Vent		PE78	PE781	
CASES (Yellow-Ochre)	Acetylene	▨	PI13	PI131	PI132
	Argon		PI59	PI591	PI592
	Argoshield			PI871	PI872
	Carbogen	▨	PI03	PI031	PI032
	Carbon Dioxide	▨	PI09	PI091	PI092
	Carbon Monoxide	▨			PI552
	Dust		PI61		
	Exhaust		PI37	PI371	
	Foul Gas	▨	PI63		
	Gaseous Ammonia	▨	PI33	PI331	PI332
	Gaseous Chlorine	▨	PI21	PI211	PI212
	Gaseous Nitrogen		PI27	PI271	PI272
	Gaseous Oxygen	▨	PI07	PI071	PI072
	Helium			PI251	PI252
	High Pressure Refrigerant	▨	PI89	PI891	PI892
	Hydrogen	▨	PI29	PI291	PI292
	Inert Gas		PI39	PI391	
	Liquid Ammonia	▨	PI41	PI411	PI412
	Liquid Chlorine	▨		PI431	PI432
	Liquid Nitrogen	▨		PI471	PI472
	Liquid Oxygen	▨		PI451	PI452
	L.P. Gas	▨	PI15	PI151	PI152
	Medical Nitrous Oxide	▨	PI23	PI231	**
	Medical Oxygen	▨	PI05	PI051	**
	Natural Gas	▨	PI17	PI171	PI172
	Natural Gas 2.75kPa	▨		PI711	
	Natural Gas 100kPa	▨	PI35	PI351	PI352
	Natural Gas 210kPa	▨	PI73	PI731	
	Nitrous Oxide	▨		PI651	PI652
	Propane	▨	PI11	PI111	PI112
	Refrigerant	▨	PI31	PI311	PI312
	Refrigerant 134A	▨	PI79	PI791	
	Refrigerant 410A	▨	PI75	PI751	PI752
	Refrigerant 407C	▨	PI77	PI771	
	Refrigerant 404A	▨	PI81	PI811	
	Town Gas	▨	PI19	PI191	PI192
	Vent		PI49	PI491	PI492
	Waste Gas		PI67		
MISCELLANEOUS (Black)	Ash Slurry		PK23		
	Beer		PK25	PK251	
	Beer Recovery		PK27	PK271	
	Brine		PKD9	PK091	
	Concentrated Black Liquor		PK49		
	Digested Sludge		PK43		
	Dirty Water		PK92		
	Drains		PKD1	PK011	
	Effluent		PK75	PK751	PK752
	Floor Drainage		PK89		
	Glycol		PK95	PK951	
	Grease Vent		PK81	PK811	
	Grease Waste		PK79	PK791	
	Lab Waste				PK372
	Nutrients			PK841	PK842
	Product		PK11	PK111	PK112
	Pulverized Fuel		PK19		
	Pumped Drainage		PK53		
	Raw Green Liquor		PK57		
	Raw Sludge		PK35	PK351	
	Raw Sludge By-Pass		PK55		
	Recirculated Sludge		PK63		
	Reclaimed Effluent		PK61		
	Reclaimed Sewage		PK59	PK591	
	Return Activated Sludge		PK65		
	Scum		PK51		
	Sewage		PK03	PK031	
	Sludge Transfer		PK67		
	Slurry		PK33		
	Soil		PK13	PK131	
	Soil Vent		PK31	PK311	
	Strong Black Liquor		PK69		
	Suction Discharge		PK05	PK051	PK052
	Supernatant		PK45		
	Thickened Sludge		PK71		
	Trade Waste		PK77	PK771	
	Vent		PK21	PK211	
	Waste		PK15	PK151	PK152
	Waste Activated Sludge		PK47		
STEAM (Silver-Grey)	Auxiliary Steam	▨	PS28	PS281	
	Blowdown	▨	PS24	PS241	PS242
	Cold R/H Steam	▨	PS18	PS181	
	Drains	▨	PS34		
	Exhaust	▨	PS08	PS081	
	Gland Steam	▨	PS20	PS201	
	Hot R/H Steam	▨	PS16		
	H.P. Steam	▨	PS04	PS041	
	L.P. Steam	▨	PS06	PS061	
	Main Steam	▨	PS30		
	Saturated Steam	▨	PS10		
	Sealing Steam	▨	PS26		
	Steam	▨	PS02	PS021	PS022
	Steam Condensate	▨	PS32	PS321	
	Steam Drain	▨	PS22	PS221	PS222
	Steam 380kPa	▨	PS42		
	Steam 920kPa	▨	PS40		
	Steam 2900kPa	▨	PS38		
	Superheated Steam	▨	PS12		
FIRE (Red)	Carbon Dioxide		PR09	PR091	
	Fire Alarm	(Do Not Paint)	PR04	PR041	PR042
	Fire Detection System				PR252
	Fire Fighting Water		PR21	PR211	PR212
	Fire Foam		PR07	PR071	
	Fire Hose Reels		PR23	PR231	PR232
	Fire Hydrant		PR18	PR181	
	Fire Service		PR16	PR161	PR162
	Fire Sprinklers		PR20	PR201	PR202
	Fire Sprinklers Dry			PR221	
	Halocarbon			PR021	PR022
	Hydrant Water		PR08	PR081	
	Inert Gas		PR39		
	Pre-Action Sprinklers		PR29	PR291	
	Water Mist		PR27	PR271	

GENERAL CLASSIFICATION	LEGEND	SAFETY SIGNAL*	CATALOGUE No. (Pkt of 10) Type L 460 X 57	Type S 460 X 29	Type T 89 X 460
MEDICAL GASES	Medical Breathing Air	▨	White, Black, White		PH012
	Medical Nitrous Oxide	▨	White on Blue		PH032
	Medical Oxygen	▨	Black on White		PH052
	Medical Suction	▨	Black on Primrose		PH102
	Surgical Tool Air		White on Aqua		PH142
	Ventuil Suction Exhaust		Black on Sand		PH162
OILS (Brown)	Alcohol		PB92	PB921	
	Cold Oil		PB98	PB981	PB982
	Daily Oil Tank		PB77		
	Diesel Fuel		PB83	PB831	PB832
	Engine Oil			PB811	
	Fuel Oil		PB82	PB821	PB822
	Fuel Oil Recirc			PB871	
	Glycol		PB73	PB731	
	Grease		PB78	PB781	PB782
	Heating Oil		PB79	PB791	
	Hot Oil		PB84	PB841	PB842
	Hydraulic Fluid			PB991	PB992
	Jacking Oil		PB89	PB891	PB892
	Lube Oil Drain			PB851	
	Lubricating Oil		PB90	PB901	PB902
	Mineral Turps		PB88	PB881	
	Oil Vapour			PB741	PB742
	Oil Vent			PB761	
	Operating Oil		PB75	PB751	PB752
	Relay Oil			PB911	
	Seal Oil		PB97	PB971	
	White Spirit		PB96	PB961	
COMMUNICATION (White)	Data Transfer			PW061	PW062
	Public Address			PW101	PW102
	Telephones			PW081	PW082
ELECTRICAL (Orange)	Consumer's Mains	▨	PO14	PO141	PO142
	Electrical	▨	PO02	PO021	PO022
	Emergency Lighting	▨			PO182
	Sub-Mains	▨	PO12	PO121	PO122
	Traffic Control	▨			PO162
ALKALIS/ACIDS (Violet)	Acid	▨	PM02	PM021	
	Alkali	▨	PM04	PM041	PM042
	Alum			PM561	PM562
	Caustic	▨	PM06	PM061	PM062
	Caustic Potash Solution	▨	PM42		
	Caustic Soda	▨	PM30	PM301	
	Chemical Dosing	▨	PM12	PM121	
	Chemical Effluent	▨	PM36		
	Chlorine Solution		PM58	PM581	PM582
	Citric Acid			PM241	
	Concentrated Caustic	▨		PM321	PM322
	Cyanide Solution	▨	PM48	PM481	
	Detergent		PM44	PM441	
	Dilute Acid	▨	PM20	PM201	PM202
	Dilute Caustic	▨	PM22		
	Flocculant			PM281	
	Hydrazine	▨	PM18	PM181	PM182
	Hydrochloric Acid	▨		PM461	
	Lime		PM16	PM161	
	Morpholine	▨	PM38		
	Phosphate		PM14		
	Phosphoric Acid	▨	PM08	PM081	
	Pickle Liquor			PM501	
	Polyelectrolyte			PM341	
	Sodium Hydroxide	▨	PM26	PM261	
	Sodium Hypochlorite	▨		PM981	PM982
	Sodium Fluoride	▨		PM521	PM522
	Sulphuric Acid	▨	PM10	PM101	PM102
Water (Green)	Alternative Water Supply-Not For Drinking		PG93	PG931	
	Ash Sluice Water		PG81		
	Auxiliary Cooling Water		PG74	PG741	PG742
	Backwash		PG84	PG841	
	Ballast Water		PG03		
	Boiler Feed Water		PG58	PG581	PG582
	Bore Water		PG38	PG381	
	Brine		PG71	PG711	
	Bilge		PG85	PG851	
	Chilled Drinking Water		PG24	PG241	PG242
	Chilled Water		PG02	PG021	PG022
	Chilled Water Flow		PG13	PG131	
	Chilled Water Return		PG07	PG071	
	Circulating Water		PG45	PG451	PG452
	Cold Water		PG52	PG521	PG522
	Condensate		PG32	PG321	PG322
	Condenser Water		PG06	PG061	PG062
	Condenser Water Flow			PG171	
	Condenser Water Return			PG191	
	Cooling Salt Water		PG59	PG591	PG592
	Cooling Water		PG60	PG601	PG602
	De-Gassed Water		PG72	PG721	
	De-Ionized Water		PG31	PG311	PG312
	Demineralized Water		PG48	PG481	PG482
	Distilled Water		PG50	PG501	PG502
	Domestic Cold Water		PG09	PG091	PG092
	Domestic Hot Water		PG10	PG101	PG102
	Domestic Water		PG11	PG111	PG112
	Drain Water		PG94	PG941	PG942
	Drinking Water			PG431	PG432
	Feed Water		PG90	PG901	
	Filtered Water		PG40	PG401	PG402
	Fog Water		PG92	PG921	
	Fresh Water		PG34	PG341	PG342
	Gland Seal Water		PG37	PG371	PG372
	Heating Hot Water		PG26	PG261	
	Heating Water		PG25	PG251	PG252
	Heating Water Flow		PG27	PG271	
	Heating Water Return		PG30	PG301	
	High Pressure Hot Water		PG49	PG491	PG492
	Hot Ablution Water	▨	PG75		
	Hot Water		PG54	PG541	PG542
	High Temperature Hot Water		PG12	PG121	
	Jacket Water	▨	PG61	PG611	PG612
	Lab Water				PG772
	Low Temperature Hot Water		PG51	PG511	PG512
	Make Up Water		PG08	PG081	PG082
	Non-Potable Cold Water		GP83	GP831	GP832
	Non-Potable Hot Water		PG87	PG871	PG872
	Non-Potable Water		PG80	PG801	PG802
	Overflow		PG96	PG961	
	Polluted Water		PG28	PG281	PG282
	Potable Water		PG78	PG781	PG782
	Process Water		PG05	PG051	PG052
	Purified Water			PG981	PG982
	Rainwater		PG82	PG821	PG822
	Raw Water		PG63	PG631	
	Reclaimed Water Non-Potable		PG88	PG881	
	Salt Water		PG62	PG621	
	Sample Water		PG70	PG701	PG702
	Scuppers			PG861	
	Softened Water		PG36	PG361	PG362
	Solar Hot Water			PG911	
	Spray Water		PG16	PG161	
	Storm Water		PG42	PG421	
	Sump Water		PG44	PG441	
	Tempered Water			PG221	PG222
	Town Main Water		PG04	PG041	PG042
	Transfer Water		PG68	PG681	
	Treated Water		PG99	PG991	PG992
	Waste Water		PG46	PG461	
	Water		PG56	PG561	PG562
	Well Water		PG14	PG141	

*Safety Signals are indicated as a guide only. These are overall sets to be used as appropriate to the circumstances.

OVERMARKERS TO INDICATE CONTENTS HAZARDS	COLOUR	For Type L Markers Size mm	Cat. No.	For Type S Markers Size mm	Cat. No.	For Type T Markers Size mm	Cat. No.
Fire Fighting Material		75 x 50	XM3R	75 x 22	XM31R	460 x 25	XM32R
Dangerous Material	▨	75 x 50	XM3Y	75 x 22	XM31Y	460 x 25	XM32Y
For Human Consumption		75 x 50	XM3B	75 x 22	XM31B	460 x 25	XM32B
Radioactive	☢	75 x 50	XM3A	75 x 22	XM31A	460 x 25	XM32A
Biological Hazard	☣	75 x 50	XM3H	75 x 22	XM31H	460 x 25	XM32H

Flow Marker		Covers Chevron	XM2F	Covers Chevron	XM21F		
Return Marker		Covers Chevron	XM2R	Covers Chevron	XM21R		

All catalogue numbers on this page relate to packets of ten (10) of the marker concerned.
Broken packs are not available.

COLOUR BANDING TAPES

COLOUR	460 x 25mm	460 x 50mm	COLOUR	460 x 25mm	460 x 50mm
Yellow	MM101	MM10	Brown	MB141	MB14
Lt. Blue	ME111	ME11	Silver	MS151	MS15
Orange	MO121	MO12	Green	MG161	MG16
Biscuit	MT131	MT13	Black	MK171	MK17
Dk. Blue	ML191	ML19	White	MW181	MW18

SUPPLEMENTARY DIRECTION ARROWS

	Small 90 x 30mm	XM71
	Large 180 x 60mm	XM7

HVAC & R

STANDARD, SELF- ADHESIVE PIPE MARKERS

PACKETS OF 10

LEGEND	TYPE L	TYPE S	TYPE T
AIR EXTRACTION	PE97		
AMENITIES SUPPLY VENTILATION	PE91		
FEMALE AMENITIES EXHAUST	PE95		
MALE AMENITIES EXHAUST	PE93		
RETURN AIR	PE99	PE991	
SERVICE AIR	PE88	PE881	PE882
SUPPLY AIR	PE89	PE891	
VENT	PE78	PE781	

Pipeline identification in the HVAC industry is well established. Because installations are so extensive, throughout a building, it is essential that all pipes and ducts should be identified. Work on these systems is frequently outsourced to specialist contractors so that the people responsible for a particular installation can be subject to frequent change.

The advantage of close, personal oversight tends to be lost. Clear pipe and duct identification provides the orientation needed by anyone not totally familiar with the site and the system.

Standards, too, reflect the need for identification with AS1345 referenced, for example, in AS/NZS1677.2, AS/NZS2022, AS4426 and the National Plumbing Code. These references can sometimes mean that the identifying requirement is carried into legislation, either Federal or State. One example, for fire hydrants, is given on page 5

Moreover, if any piped substance is classified as a dangerous good, for example ammonia, State Dangerous Goods Regulations require pipe identification in accordance with AS1345.

MARKER SELECTION

OUTSIDE DIAMETER OF PIPE	75mm and OVER	BETWEEN 40mm and 75mm	UP to 40mm
MARKER TYPE	TYPE L	TYPE S	TYPE T

PHONE: 1300 781 288
FAX: 1300 761 244

Safetyman

HEATING, VENTILATING, AIR CONDITIONING & REFRIGERATION

LEGEND	TYPE L	TYPE S	TYPE T
AUXILIARY COOLING WATER	PG74	PG741	PG742
CHILLED DRINKING WATER	PG24	PG241	PG242
CHILLED WATER	PG02	PG021	PG022
CHILLED WATER FLOW	PG13	PG131	
CHILLED WATER RETURN	PG07	PG071	
CIRCULATING WATER	PG45	PG451	PG452
COLD WATER	PG52	PG521	PG522
CONDENSER WATER	PG06	PG061	PG062
CONDENSER WATER FLOW		PG171	
CONDENSER WATER RETURN		PG191	
COOLING SALT WATER	PG59	PG591	PG592
COOLING WATER	PG60	PG601	PG602
DRAIN WATER	PG94	PG941	PG942
HEATING HOT WATER	PG26	PG261	
HEATING WATER	PG25	PG251	
HEATING WATER FLOW	PG27	PG271	
HEATING WATER RETURN	PG30	PG301	
HEATING/COOLING WATER	PG64	PG641	PG642
HIGH PRESSURE HOT WATER	PG49	PG491	PG492
HOT WATER	PG54	PG541	PG542
LOW TEMPERATURE HOT WATER	PG51	PG511	PG512
NON-POTABLE WATER	PG80	PG801	PG802
OVERFLOW	PG96	PG961	
SALT WATER	PG62	PG621	
SOLAR HOT WATER		PG911	
TOWN MAIN WATER	PG04	PG041	PG042
TREATED WATER	PG99	PG991	PG992
WASTE WATER	PG46	PG461	

LEGEND	TYPE L	TYPE S	TYPE T
GASEOUS AMMONIA	PT33	PT331	PT332
HIGH PRESSURE REFRIGERANT	PT89	PT891	PT892
LIQUID AMMONIA	PT41	PT411	PT412
REFRIGERANT	PT31	PT311	PT312
VENT	PT49	PT491	PT492
REFRIGERANT 134A	PT79	PT791	
REFRIGERANT 410A	PT75	PT751	PT752
REFRIGERANT 407C	PT77	PT771	
REFRIGERANT R22	PT53	PT531	PT532
REFRIGERANT 404A	PT81	PT811	

VALVE TAGS

Valve identification is essential in any complex piping system. Available tags range from the simple, brass "dog tags" to colourful, engraved plastic and durable stainless steel. Ask for quotations.

VALVE LOCATION MARKERS

CONTROL VALVE ABOVE

Part No.	Size.
XV43/110	100 x 75mm

ISOLATION VALVE ABOVE

Part No.	Size.
XV43/115	100 x 75mm

STOP VALVE ABOVE

Part No.	Size.
XV43/120	100 x 75mm

TEMPERING VALVE ABOVE

Part No.	Size.
XV43/130	100 x 75mm

THERMOSTATIC MIXING VALVE ABOVE

Part No.	Size.
XV43/125	100 x 75mm

CONTROL VALVE

Part No.	Size.
XV42/110	100 x 50mm

ISOLATION VALVE

Part No.	Size.
XV42/115	100 x 50mm

STOP VALVE

Part No.	Size.
XV42/120	100 x 50mm

TEMPERING VALVE

Part No.	Size.
XV42/130	100 x 50mm

THERMOSTATIC MIXING VALVE

Part No.	Size.
XV42/125	100 x 50mm

HOT WATER CONTROL VALVE

Part No.	Size.
XV42/135	100 x 50mm

COLD WATER CONTROL VALVE

Part No.	Size.
XV42/140	100 x 50mm

These rigid plastic plates are provided with a self-adhesive backing allowing them to be adhered to ceiling tiles and in other appropriate locations, to identify a valve and at the same time to pinpoint a location. This simplifies future maintenance and provides guidance for emergency services when urgent action must be taken.

EMERGENCY STOP

Part No.	Size.	
XF29L/815	300 x 225mm	L
XF63LP/815	150 x 75mm	PL
XF94LP/815	225 x 110mm	

EMERGENCY GAS SHUT-OFF

FPR961 200 x 75mm P ©

EMERGENCY ELECTRICAL SHUT-OFF

FPR964 200 x 75mm P ©

BUND DRAIN VALVE TO BE KEPT CLOSED AND LOCKED

Part No.	Size.	
XQB7024	600 x 300mm	A

A TEMPERING VALVE HAS BEEN INSTALLED TO PREVENT SCALDING. THIS VALVE IS TO BE RENEWED BY A LICENSED PLUMBER AT INTERVALS RECOMMENDED BY THE VALVE MANFACTURER.

Part No.	Size.	
P52188	125 x 50mm	PC

EMERGENCY STEAM SHUT-OFF

FPR979 200 x 75mm P ©

EMERGENCY WATER SHUT-OFF

FPR962 200 x 75mm P ©

CLIMATE CHANGE WARNING SIGNS

Part No.	Size.	
XM64/CRC11	150 x 100mm	PC

Part No.	Size.	
XM64/CF502	150 x 100mm	PC

Part No.	Size.	
XM64/CF22	150 x 100mm	PC

Part No.	Size.	
XM43/CFC500	100 x 75mm	PC

In those systems still employing ozone depleting refrigerants, it is both prudent and desirable to provide warning notices to ensure that service is only carried out be qualified personnel.

A Colorbond™ Metal PC Self-Adhesive ESTERCAL™ FILM PL Reflective Self- Adhestive P 1.5mm RAVEK™ Plastic L Reflective Metal

* Australian Registered Design No

MEDICAL

When AS2896 was first drawn up, it was felt that to have the colours of AS1345 in the clinical areas of medical practice, could cause confusion. This was because cylinder tops were painted to a different colour code (AS4484). Accordingly, colours, similar to those applied to cylinders, were adopted for clinical areas. The intention was that outside of these areas, away from medical personnel, and back to the manifold, identification would revert to AS1345. This is illustrated by the adjoining columns showing the clinical and non-clinical markings for medical services.

LEGEND	TYPE L	TYPE S	TYPE T
MEDICAL BREATHING AIR	PE68	PE681	→
MEDICAL NITROUS OXIDE	PT23	PT231	→
MEDICAL OXYGEN	PT05	PT051	→
MEDICAL SUCTION		PE861	→
COMPRESSED AIR	PE62	PE621	PE622
MEDICAL SUCTION MEDICAL VACUUM	PE86	PE861 PE661	→
CUSTOM MADE MARKERS			→
CARBOGEN OR CUSTOM MADE MARKERS	PT03	PT031	PT032 →

LEGEND	TYPE T
MEDICAL BREATHING AIR MEDICAL BREATHING AIR MEDICAL BREATHING AIR	PHO12
MEDICAL NITROUS OXIDE MEDICAL NITROUS OXIDE MEDICAL NITROUS OXIDE MEDICAL NITROUS OXIDE	PH032
MEDICAL OXYGEN MEDICAL OXYGEN MEDICAL OXYGEN MEDICAL OXYGEN	PH052
MEDICAL SUCTION MEDICAL SUCTION MEDICAL SUCTION MEDICAL SUCTION	PH102
SURGICAL TOOL AIR SURGICAL TOOL AIR SURGICAL TOOL AIR SURGICAL TOOL AIR	PH142
VENTURI SUCTION EXHAUST VENTURI SUCTION EXHAUST VENTURI SUCTION EXHAUST VENTURI SUCTION EXHAUST	PH162
MEDICAL NITROUS OXIDE/OXYGEN 50/50 MEDICAL NITROUS OXIDE/OXYGEN 50/50 MEDICAL NITROUS OXIDE/OXYGEN 50/50	PH187
MEDICAL MEDICAL MEDICAL	PH202

LEGEND	PART No
LEAD REPLACEMENT PETROL	PP303
UNLEADED PETROL	PP263
PREMIUM UNLEADED PETROL	PP293
HIGH OCTANE PETROL	PP393
NAPHTHA	PP083
WHITE SPIRIT	PP153
MINERAL TURPENTINE	PP373
POWER KEROSENE	PP073
LIGHTING KEROSENE	PP063
HEATING OIL	PP033
AUTOMOTIVE DIESEL FUEL	PP323
ETHANOL	PP273
FURNACE OIL	PP103
BITUMEN	PP113
LUBE OIL	PP143
LP GAS LIQUID	PP333
FIRE FIGHTING WATER	PP343
OTHER WATER	PP353
FOAM SOLUTION	PP203
FOAM CONCENTRATE	PP193
PETROL VAPOUR	PP363

LEAD REPLACEMENT PETROL	PP311
PREMIUM UNLEADED PETROL	PP453
HIGH OCTANE PETROL	PP393
LP GAS VAPOUR	PP413
TEMPERED LP GAS	PP183
FRESH WATER	PP403

AVGAS 100	PP223
AVGAS 100 LOW LEAD	PP433

JET A-1	PP243
AVCAT	PP423

OIL INDUSTRY

PETROLEUM INDUSTRY CODE OF PRACTICE (CP5-2003) SUBSEQUENTLY ADOPTED AS AUSTRALIAN STANDARD 4977

The petroleum industry is a special case in which AS1345 does not offer sufficient product differentiation. In fact, under AS1345, nearly all markings would be brown.

For this reason, the Transport Task Force of the Australian Institute of Petroleum Ltd (AIP) prepared a comprehensive Code, CP5 for the identification of pipeline systems, road tanker compartments and underground tanks. AS1345 recognizes this Code, as it may do for other industry specific standards. However, the A.I.P. has now withdrawn its Codes Of Practice and the CP5-2003 Code has been adopted by Standards Australia and published as a new Australian Standard, AS 4977-2008

Neither the former Code nor the Standard replaces statutory regulations which, where they exist, must take precedence. However, the Code did provide a nationally accepted, uniform colour identification system for the industry in Australia.

It is recognized that particular companies or sites may require different product names to be employed. The Code and now the Standard allowed for these variations but requires the colour standard be maintained throughout. Moreover, it makes it clear that within a plant or property boundary, both colour and product name should essentially be maintained, for safety and product integrity.

Under the former Code, and subsequently the Standard, all markers are a modified form of Type L.They are supplied in packets of ten and can be ordered by Part No, stating the required legend. Special legends incur additional charges.
In 2007 the Australian Institute of Petroleum ceased to issue codes and CP5 was adopted as an Australian Standard.

IDENTIFICATION TAGS

T323A

T263T

T293T

T033T

T273T

T243T

These metal tags are used to assist road tanker drivers and others responsible for the loading of bulk petroleum products. By identifying tanker compartments, confusion and possible contamination of product is rendered far less likely.

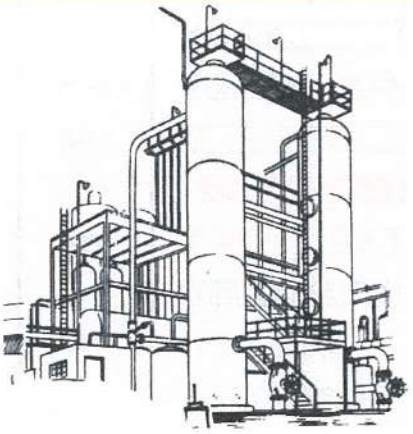
Tags are also used to identify stand pipes with the tag, wire-tied below the removable cap.

Again, the purpose is to avoid a possible "shandy".

T223T

T393T

TYPE XL™ PIPEMARKERS



These oversize markers may be employed in situations where it is needed to identify pipework from a distance. These positions may be encountered in power stations, aircraft hangars and large, high factories or warehouses where the identification of piping, from the floor level, is necessary.

They can also find application in large external sites such as oil refineries and depots, water works and major pipeline systems where very large pipes must be identified in accordance with Clause of AS1345.

XL™ markers are twice the size of standard Type L markers. They are made to order and supplied loose packed.

Because of their size, they can be more difficult to handle, especially at heights. Therefore, with inexperienced handlers, we recommend that XL™ markers be ordered with carrier film applied to the face. This stiffens the assembly thus making it easier to control in application. After applying the marker, the carrier film is peeled away and discarded or used on another marker.

To order, simply state 'XL' colour, legend and quantity.
If carrier film is required add the word ' CARRIER' to the description.
Minimum order: 10 markers.

BANDING TAPE

USE IT TO PROVIDE INTERMEDIATE MARKINGS BETWEEN PIPEMARKERS OR TO GIVE A THREE DIMENSIONAL COLOUR CODING AT EVERY PIPEMARKER BY COMPLETELY CIRCLING THE PIPE

COLOUR	460 x 25	460 x 50	COLOUR	460 x 25	460 x 50
VIOLET	MM101	MM10	BROWN	MB141	MB14
LT. BLUE	ME111	ME11	SILVER	MS151	MS15
ORANGE	MO121	MO12	GREEN	MG161	MG16
BISCUIT	MT131	MT13	BLACK	MK171	MK17
DK. BLUE			WHITE		

SUPPLEMENTARY MARKERS

CAN BE PLACED OVER THE UNWANTED CHEVRON TO INDICATE FLOW OR RETURN

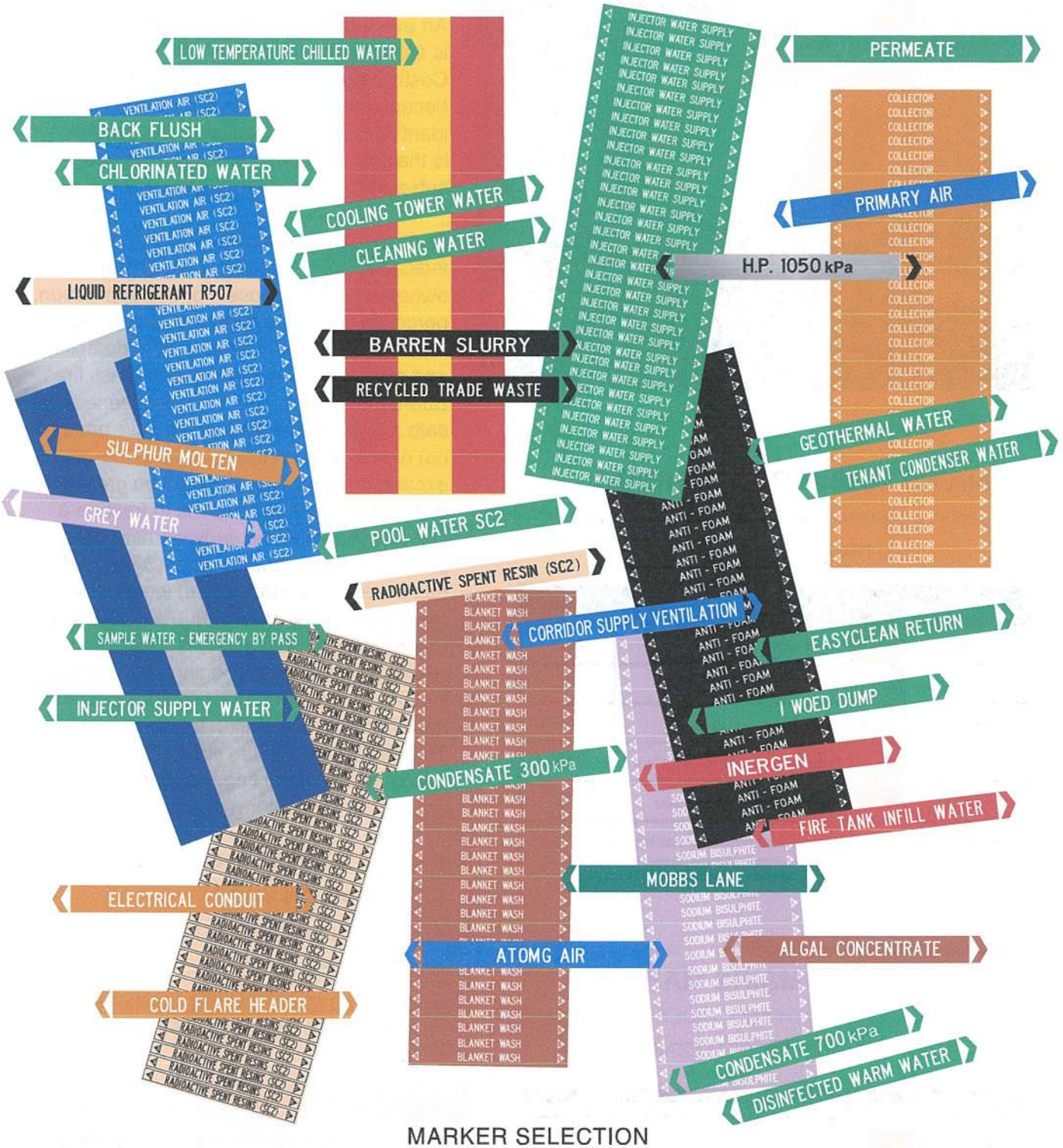
PKTS OF 10	FLOW	RETURN
TYPE L	XM2F	XM2R
TYPE S	XM21F	XM21R

PRIMARY	SECONDARY

PKTS OF 10	PRIMARY	SECONDARY
89 x 29mm	XM4P	XM4S

CUSTOM MADE PIPEMARKERS

Safetyman



MARKER SELECTION

OUTSIDE DIAMETER OF PIPE	75mm and OVER	BETWEEN 40mm and 75mm	UP to 40mm
MARKER TYPE	TYPE L	TYPE S	TYPE T

Whilst the range of standard pipemarkers is both extensive and comprehensive, there are situations demanding different or site specific legends. These can be readily supplied. Again, they are manufactured in strict compliance with AS1345, using the same premium quality materials. Nevertheless, as shown in the illustration, markers in accordance with other Standards can be prepared.

When ordering, indicate the marker type, the quantity, the colour and the required legend. We can take it from there.

Safetyman

PIPE & CABLE LOCATION SYSTEM

An ever-present hazard to buried services is subsequent, third party interferences Costly digging accidents normally occur because of inadequate records and lack of identification. The solution to this problem is the provision of surface markers and sub-surface, early warning tapes.

Surface markers identify the service, usually indicating both direction, route change, ownership and purpose. For this application, porcelain enamel is often chosen as the sign medium, because of its long term durability and even the ability to withstand grass fires. Sub-surface early warning tapes, buried at a safe margin above the service, give protection not only to the service but also to the excavation contractor who can be greatly disadvantaged if he happens to fracture a service. Underground early warning tape, produced in accordance with AS/NZ 2648.1, has the ability to stretch both longitudinally and traversely by at least 300%. It also has a tear resistance of at least 3N. This means that when encountered by digging implements, instead of snapping unnoticed, it stretches to draw immediate attention to its presence. This can be seen in the illustration where it becomes a warning flag, wrapping itself around the excacator.

MAINS MARKER™, STANDARD

250m x 100mm, ONE ROLL PER CARTON

NON-DETECTABLE

PRODUCT CODE	COL	MAINS MARKER NON-DETECTABLE	MTRS /ROLL
860050		Danger - Buried Gas Main Below	250
860100		Danger - Buried Water Main Below	250
860150		Danger - Buried Sewer Main Below	250
860175		Recycled / Reclaimed Water - Do Not Drink	250
860200		Danger - Buried Electricity Main Below	250
860355		Danger - Buried Communication Main Below	250

* MADE TO AS/NZ 2648.1 1995
* AUSTRALIAN MADE
* HIGH CHEMICAL RESISTANCE
* LEAD FREE
* CUSTOM MADE MAINS MARKERS™ AVAILABLE ON REQUEST

CONTRACTOR MAINS MARKER™

OFFERS LONGER LENGTH AND WIDER COVERAGE

500m x 150mm NON-DETECTABLE

PRODUCT CODE	COL	MAINS MARKER NON-DETECTABLE	DIMENSION
860210		Warning - Electric Cable Below	500 x 150mm
*861210		Warning - Electric Cable Below	100 x 150mm
860211		Danger - Buried Communication Main Below	500 x 150mm
*860212		Danger - Buried Gas Main Below	500 x 150mm
*860214		Danger - Buried Water Main Below	500 x 150mm

* MADE TO ORDER

UNDERGROUND DETECTABLE

Non-metallic services present additional problems. Locating them can be difficult when they need to be accessed. Fibre-optic cables, terracotta drainage pipes, plastic irrigation pipes and other plastic services present these problems and the solution is to protect them with detectable early warning tape.

Detectable tapes employ a 316 stainless steel tracer wire throughout their length, thus revealing their position to a metal detector. These tapes offer the same level of protection achieved by the standard early warning tapes but with the additional advantage of detectability.
This means that costly exploratory digging is eliminated.

MAINS MARKER™, DETECTABLE, EARLY WARNING TAPE

OFFERS SUPERIOR PROTECTION FOR BURIED UTILITIES.

* ONE ROLL PER CARTON, 250m x 100mm
* 100 MICRON FOR EXTRA STRENGTH

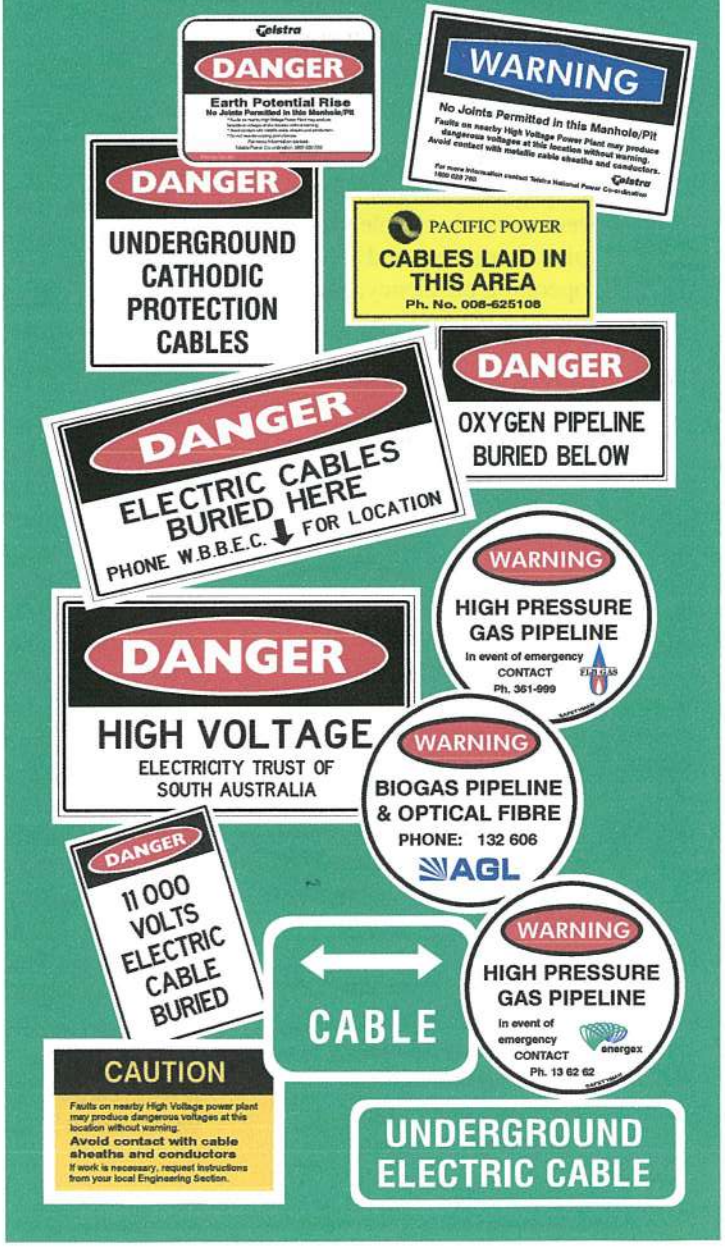
PRODUCT CODE	COL	MAINS MARKER™ DETECTABLE	MTRS /ROLL
860050MD		Danger - Buried Gas Main Below	250
860100MD		Danger - Buried Water Main Below	250
860150MD		Danger - Buried Sewer Main Below	250
860175MD		Recycled / Reclaimed Water - Do Not Drink	250
860200MD		Danger - Buried Electricity Main Below	250
860355MD		Danger - Buried Communication Main Below	250
860250MD		Danger - Buried Firefighter Main Below	250

FAIRWARNING™ DETECTABLE

OFFERS A PREMIUM LEVEL OF PROTECTION AND DETECTABILITY FOR BURIED UTILITIES.
WIDER: 100m x 200mm

PRODUCT CODE	COL	FAIRWARNING™ DESCRIPTION	MTRS /ROLL
880050		Danger - Buried Gas Main Below	100
880100		Danger - Buried Water Main Below	100
880150		Danger - Buried Sewer Main Below	100
880155		Recycled / Reclaimed Water - Do Not Drink	100

ABOVE GROUND



PIPEMARKERS

Radical changes sometimes take place almost unnoticed. This was the case with pipemarking systems in Australia.

The marking of pipes to indicate contents and flow direction has long been accepted as essential to industrial operations.

Look at any industrial complex or, for that matter, any major building; notice the proliferation of piping reticula. In buildings, it is usually hidden away from public view but it is there in ever increasing complexity.

Even the most conversant employee could not hope to remember the whole piping plan. For safety and operating efficiency, pipes must be marked.

Any marking system, providing it is not too complex and employees are familiar with it, will greatly facilitate maintenance operations and contribute significantly to the safety of personnel. However, the change in pipe identification, taking place some forty years ago, was to standardize both methods and colours nationally and internationally. There were immediate advantages. The most significant is manifest only in an emergency situation.
Fire Brigade or other officials, unfamiliar with the site, may be called upon to make strategic decisions without the advantage of informed advice from staff members. Such decisions are greatly facilitated if a standard system of pipe identification is employed. Also, with a standard marking system, Fire Officers will immediately recognize secondary hazards and timely preventive measures may be taken.

Similarly, with the widespread adoption of the standard code, maintenance and other outside contractors may operate, confidently without fear of inadvertent error. Again, with the mobility of labour, the influx of immigrants and the recent practice of outsourcing, a universally accepted colour coding greatly facilitates the orientation process. The lack of standards, in the past, led to confusion.

These difficulties were recognized by the International Organization for Standardization (ISO), in Geneva, and action was taken to remedy the situation. Early in the 1950s, two committees of ISO were working independently on what amounted to the same problem. One committee was concerned with shipbuilding and marine installations; the other, with pipes and fittings in land based installations. The two committees drew up draft recommendations which, in fact, differed from each other. Of course, it was realized that this would result in undesirable conflict and an effort was made to co-ordinate requirements in both areas.

ISO committees TC8 and TC5 began work on the question in 1956 and, in 1962, a draft recommendation was prepared. This was circulated for comment and subject to a few minor modifications, it was adopted and published as an ISO Recommendation, R508, in October, 1966. This Code was applicable to both land and marine applications.

In drafting the new Code, considerable thought was given to the way in which identification could be achieved. Colour coding was considered to be the most satisfactory means. However, at the same time, it was felt that the number of colours should be kept to an absolute minimum. Too many colours create problems in terms of both memory and recognition. The ISO system avoided this possibility of misinterpretation by allowing only six broad classifications of materials with common properties. Colours with the broadest possible spread of wavelength were allocated for these six classifications.

COLOUR BLIND

That is, the colour selection was made in such a way as to minimize the possibility of error through difficulties in colour perception. These difficulties may arise, of course, through fatigue, colour blindness or perhaps faded pigments on painted pipes.

The standards organizations of most advanced countries are members of ISO and usually adopt the ISO recommendations as the basis for national standards. In the case of the pipemarking recommendations, there was almost universal acceptance, so that it is effectively, an international standard. Australia was in the vanguard. Even before the ISO draft had been adopted, an Australian committee was working on a new Australian Standard. This was issued as a revision of the previous standard, CA21.1947, which had a multitude of colours. The revision was published in 1967 with some desirable additions to the original ISO draft. In this country, there was immediate acceptance of the new Code. In 1972 it was again revised and issued as AS1345. Subsequent revisions occurred in 1983 and 1995. Amongst the changes, two new colours were added. These were white for communications and red for fire fighting materials

TOO GENERAL

However, in some process industries, the new Standard, utilizing colour alone, was somewhat too general for useful identification. That is, if within a cluster of pipelines there were several products of the same group classification, each would have the same colour coding and therefore, no differentiation could be made. This difficulty, of course, relates to day to day operations. It is of little consequence to emergency service personnel because it is usually sufficient for their purposes to know only the broad product groupings. Nevertheless, it was a problem and the recommendation was for the actual contents to be indicated by incorporating the substance name against the background colour of the marker.

Of course, with the adoption of the new Standard, a widespread need was created for a convenient and economic means whereby pipes could be coded in the prescribed manner. Previous arrangements had included the painting of pipes in the multi-colours of previous Standards (usually the old British Standard which was later discarded in favour of the ISO Recommendation) and the hand stenciling of legends on to pipes, a very labour intensive operation and æsthetically, not very attractive.

The Safetyman System, developed and refined over some forty years, has provided this convenient, economic and durable method of pipeline identification.

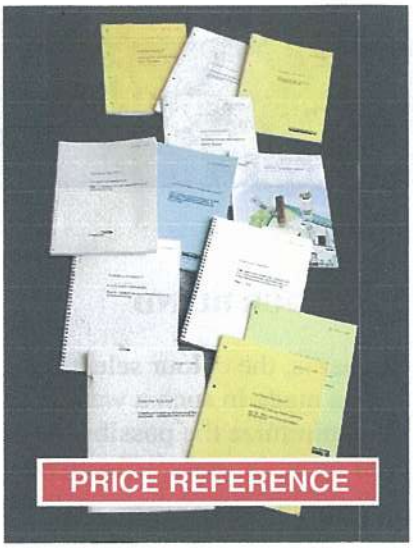
With the new system it was possible to paint all pipes in the one colour, a considerable saving and certainly, æsthetically more pleasing. Colour markers then placed appropriately provided clear identification.

Today, pipeline identification is accepted as a requirement and legislated for in virtually all major projects.

Certainly, the original hopes for the system have been realized. However, it is a pity that some authorities have chosen to ignore the Standard when choosing pipe colours. For example, the use of violet coloured pipes for reclaimed water is not only arbitrary but downright dangerous; particularly so on sites where corrosive substances are piped, and identified, in accordance with legislation, with violet markers complying with AS1345. Violet pipes may have been a sensible choice in the United States because they are one of the very few countries not to adopt the ISO Code.

STANDARDS

AS1345 is widely referenced, not only in other Standards but in legislation and Codes of Practice.
Below are listed some of the Standards that call for pipeline identification.
Safetyman is an authorized distributor of Australian Standards, so that you may order any of these or other Standards on your Safetyman account. The price reference relates to scheduled prices in the Safetyman Price List.



STANDARD No	DESCRIPTION	PRICE REFERENCE
AS/NZS 1596: 2002	The storage and handling of LP Gas.	L
AS/NZS 1677.2: 1998	Refrigerating systems - Safety requirements for fixed applications.	H
AS/NZS 1680.1: 2006	Interior and workplace lighting.	L
AS/NZS 1715: 1994	Selection, use & maintenance of respiratory protection devices.	J
AS 1940 - 2004	The storage & handling of flammable & combustible liquids.	N
AS/NZS 2022: 2003	Anhydrous ammonia.Storage & handling.	K
AS 2243.8 - 1992	Safety in laboratories. Fume cupboards.	I
AS 2243.9 - 1991	Safety in laboratories. Recirculation fume cabinets.	G
AS/NZS 2311: 2000	Guide to the painting of buildings.	M
AS/NZS 2312: 2002	Guide to the protection of structural steel against atmospheric corrosive.	M
AS 2419.1 - 2005	Fire hydrant installations.	K
AS/NZS 2648.1: 1995	Underground marking tape - Non-detectable tape.	C
AS 2885.1 - 2007	Pipelines - Gas & liquid petroleum - Design & construction.	P
AS 2896 - 1998	Installation & testing of non-flammable medical gas. Pipeline Systems.	J
HB 29 - 2007	Communications cabling manual - Module 2.	P
AS/NZS 2927: 2001	The storage & handling of liquefied chlorine gas.	K
AS 2941 - 2002	Fixed fire protection installations - Pumpset system.	L
AS/NZS 2982.1: 1997	Laboratory design & construction - General requirements.	H
AS/NZS 3500.1: 2003	Plumbing & drainage - Water services.	H
AS/NZS 3500.1.2: 1998	National Plumbing & Drainage - Water supply - Acceptable solutions.	G
AS/NZS 3500.2: 2003	Plumbing & drainage - Sanitary plumbing & drainage.	H
AS/NZS 3500.2.2: 1996	National Plumbing & Drainage - Sanitary plumbing & drainage - Acceptable solutions.	H
AS/NZS 3500.3: 2003	Plumbing & drainage - Stormwater drainage.	H
AS/NZS 3500.3.2: 1998	National Plumbing & Drainage - Stormwater drainage - Acceptable solutions.	I
AS/NZS 3500.4: 2003	Plumbing & drainage - Heated water services.	H
AS/NZS 3500.4.2: 1997	National Plumbing & Drainage - Hot water supply systems - Acceptable solutions.	H
AS/NZS 3500.5: 2000	National Plumbing & Drainage - Domestic installations.	I
AS 3780 - 1994	The storage & handling of corrosive substances.	H
AS 3873 - 2001	Pressure equipment - Operation & maintenance.	K
AS 3892 - 2001	Pressure equipment - Installation.	I
AS 3961 - 2005	The storage & handling of liquefied natural gas.	J
AS 3997.2 - 1993	Fluid power - Fire resistant hydraulic fluids - Guidance on the selection.	F
AS 4024.1 - 1996	Safeguarding of machinery - General principal.	M
AS 4041 - 2006	Pressure piping.	P
AS/NZS 4233.2: 1999	High pressure water (hydro) jetting systems - Construction & Performance.	F
AS 4326 - 1995	The storage & handling of oxidizing agents.	I
AS 4426 - 1997	Thermal insulation of pipework, ductwork & equipment.	K
AS/NZS 4452: 1997	The storage & handling of toxic substances.	I
AS 4674 - 2004	Construction & fit out of food premises.	H
AS/NZS 4681: 2000	The storage & handling of Class 9 (miscellaneous) dangerous goods.	J
AS 4774.2 - 2002	Work in compressed air & hyperbaric facilities.	J
AS 5601 - 2004	Gas installations.	I
AS/ACIF S009: 2001	Installation requirements for customer cabling.	I

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ASK ABOUT
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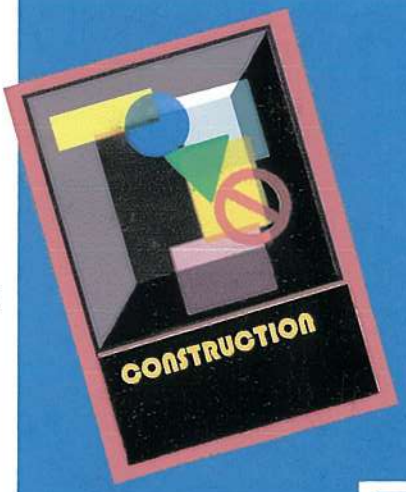
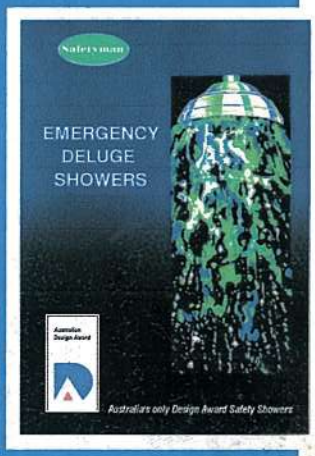
SIGNING



ASK ABOUT
SHOWERS



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ASK ABOUT
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COMMERCIAL
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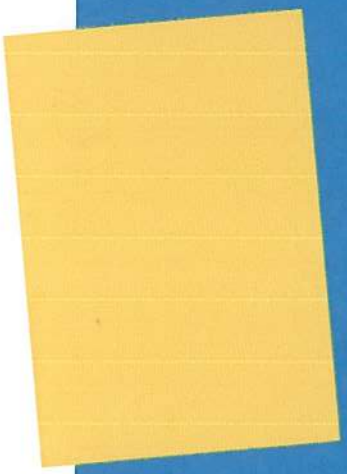

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