



MAREFLEX®

SOLAS TAPES DESIGNED FOR MARINE APPLICATION



PIPE IDENTIFICATION

PIPE MARKERS AND TAPES

www.mareflex.com

ABOUT US

Mareflex is a European supplier of high quality pipe markers and tapes which provide clear identification of the content of the piping system, flow direction, locations of particular elements and inform about hazardous conditions in plant operational areas.

Properly installed markers serve for many years and improve the level of safety, helping to reduce the amount of downtime and accidents.

All our tapes and markers are digitally printed at an **ISO:9001** approved facility with the use of materials of the first-rate quality.

Mareflex provides comprehensive service, from the design works to the final production steps, which allows to supply not only standardised colour variations, but also fully customised products.

Safe and environmentally friendly printing

Mareflex Dura Markers are printed with paints, which are **GREENGUARD®** and **ECOLOGO®** Certified to meet some of the world's most rigorous and comprehensive standards for low chemical emissions and a range of stringent human health criteria. They offer health and environmental advantages - compared to eco-solvent, solvent, or UV-curable inks.

The inks used for Mareflex pipe marking production have no hazard warning labels, contain no Hazardous Air Pollutants (HAPs), are non-flammable and non-combustible, and are nickel-free



DESIGN



MATERIAL TAKE-OFFS



PRODUCTION



TESTING



INSTALLATION

PIPE MARKERS & TAPES

COMPARISON



AS10 ECONOMY DURA MARKERS

A cost-effective solution dedicated for indoor and outdoor use in areas with limited exposure to direct sunlight. It offers fair durability, good flexibility and a service temperature up to 80°C. Recommended for newly installed pipes. It is the most economical solution for pipeline identification.



AS11 ADVANCED DURA MARKERS

Resistant to high temperatures up to 130°C, self-adhesive polyester markers offer a longer service lifetime. Due to the protective laminate layer, pipe markers have improved colour fastness and excellent resistance to prolonged sunlight exposure. Suitable for use in harsh weather conditions in marine and offshore environments.



AS12 PRE-COILED DURA MARKERS

High performance pre-coiled markers recommended for areas which are highly exposed to sunlight, difficult weather conditions and chemicals. Their special design of a non-adhesive tube allows for use on wet, oily, cold and dusty pipelines. Do not require surface preparation, can be easily removed and reapplied to other areas.

TECHNICAL DETAILS

* The actual lifetime of the markers depends on the particular conditions of use. Please contact our specialists for more information.

	AS10	AS11	AS12
Service temperature	-40°C to +80°C	-40°C to +130°C	-40°C to +130°C
Surface preparation	Yes	Yes	No
Mounting method	Self-adhesive	Self-adhesive	Pre-coiled, self-bonding
UV resistance	Good	Excellent	Excellent
Weather resistance	Very good	Excellent	Excellent
Chemical resistance	Good	Very good	Excellent
Sea water resistance	Yes	Yes	Yes
Reuse after removing	No	No	Yes
Service lifetime	3-8 years*	5-10 years*	5-10 years*

AS10

ECONOMY DURA MARKERS

Basic pipe marking solution for indoor and outdoor installations



Additional protective overcoating of the printed surface reduces paint aging and improves scratch-resistance.

A cost-effective solution dedicated for indoor and outdoor use in areas with limited exposure to direct sunlight and adverse weather conditions.

It offers fair durability, good flexibility and a service temperature up to 80°C.

Self-adhesive markers are equipped with pressure sensitive acrylic adhesive and protective release liner. Recommended for newly installed pipes.



PROTECTIVE OVERCOAT

SERVICE TEMPERATURE: **-40°C TO +80°C**

SERVICE LIFETIME: **3-8 YEARS***

TECHNICAL DETAILS

Material	self-adhesive vinyl
Protective layer	overcoat lacquer
Service temperature	-40°C to +80°C
Surface preparation	Yes
Mounting method	Self-adhesive
UV resistance	Good
Weather resistance	Very good
Chemical resistance	Good
Sea water resistance	Yes
Reuse after removing	No
Service lifetime	3-8 years*

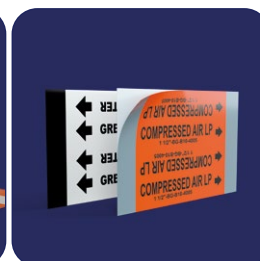
FEATURES

- fair resistance to weather conditions and UV rays
- economical and easy to use
- no minimum quantity
- custom widths with any texts and graphics on demand
- high quality acrylic adhesive
- protective overcoat on printed surface

AVAILABILITY



ROLLS



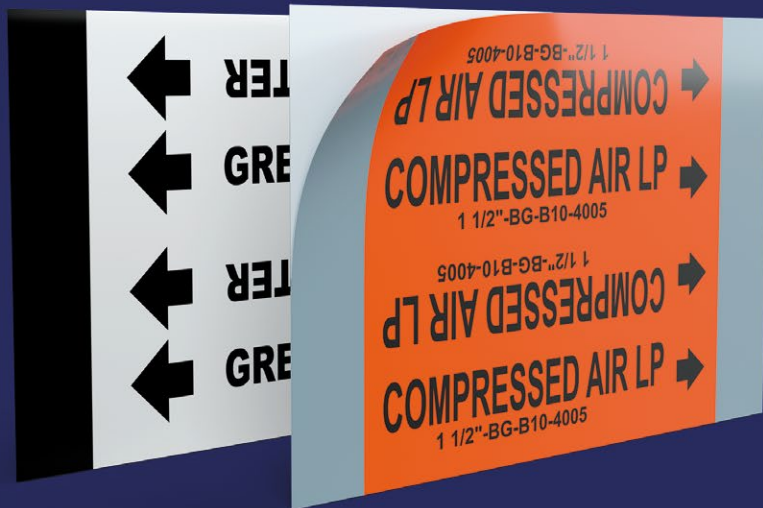
MARKERS

* The actual lifetime of the markers depends on the particular conditions of use. Please contact our specialists for more information.

AS11

ADVANCED DURA MARKERS

Higher temperature resistant pipe markers with prolonged durability



Resistant to high temperatures up to 130°C, self-adhesive polyester markers offer a longer service lifetime.

Due to the protective laminate layer, pipe markers have improved colour fastness and excellent resistance to prolonged sunlight exposure. A very good chemical resistance ensures reliable material performance.

Suitable for use in harsh weather conditions in marine and offshore environments.

SERVICE TEMPERATURE: **-40°C TO +130°C**

SERVICE LIFETIME: **5-10 YEARS***

TECHNICAL DETAILS

Material	self-adhesive polyester
Protective layer	long-life polyester laminate
Service temperature	-40°C to +130°C
Surface preparation	Yes
Mounting method	Self-adhesive
UV resistance	Excellent
Weather resistance	Excellent
Chemical resistance	Very good
Sea water resistance	Yes
Reuse after removing	No
Service lifetime	5-10 years*

FEATURES

- high temperature resistance up to 130°C
- excellent resistance to harsh weather conditions and UV rays
- very good chemical resistance
- scratch-resistant
- custom widths with any texts and graphics on demand
- high quality acrylic adhesive

AVAILABILITY



ROLLS



MARKERS

* The actual lifetime of the markers depends on the particular conditions of use. Please contact our specialists for more information.

AS12

PRE-COILED DURA MARKERS

Most advanced pipe markers for quick and easy installation



REUSABLE



High performance pre-coiled markers recommended for environments which are highly exposed to sunlight, difficult weather conditions and chemicals. Their special design of a non-adhesive tube allows for easy installation on wet, oily, cold and dusty pipelines. Do not require surface preparation, can be easily removed and reapplied to other areas.

SERVICE TEMPERATURE: **-40°C TO +140°C**

SERVICE LIFETIME: **5-10 YEARS***

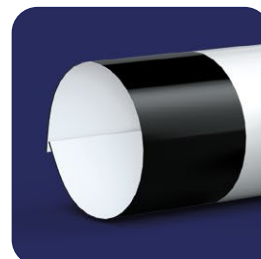
TECHNICAL DETAILS

Material	high durability polyester
Protective layer	long-life polyester laminate
Service temperature	-40°C to +130°C
Surface preparation	No
Mounting method	Pre-coiled, self-bonding
UV resistance	Excellent
Weather resistance	Excellent
Chemical resistance	Excellent
Sea water resistance	Yes
Reuse after removing	Yes
Service lifetime	5-10 years*

FEATURES

- excellent durability and long service life
- excellent resistance to UV, chemicals and sea water
- pre-coiled for easier installation
- no surface preparation required
- custom widths with any texts and graphics on demand
- can be reused

AVAILABILITY



**PRECOILED
MARKERS**

* The actual lifetime of the markers depends on the particular conditions of use. Please contact our specialists for more information.















BASIC IDENTIFICATION ACC. TO ISO 14726:2008





































The **ISO 14726:2008** standard (International Standard Organization), specifies the principle colours for the identification of media in pipes. It also specifies additional colour variations for different media or functions.

DESCRIPTION	COLOUR		ORDER CODE	ISSA	IMPA
WASTE MEDIA	RAL 9005	BLACK	MC40	47.521.40	33.2140
FRESH WATER	RAL 5015	BLUE	MC41	47.521.41	33.2141
FUEL	RAL 8001	BROWN	MC42	47.521.42	33.2142
SEA WATER	RAL 6018	GREEN	MC43	47.521.43	33.2143
NON-FLAMMABLE GASES	RAL 7001	GREY	MC44	47.521.44	33.2144
AIR AND SOUNDING PIPES	RAL 8015	MAROON	MC45	47.521.45	33.2145
OIL OTHER THAN FUELS	RAL 2003	ORANGE	MC46	47.521.46	33.2146
STEAM	RAL 9006	SILVER	MC47	47.521.47	33.2147
FIRE FIGHTING	RAL 3000	RED	MC48	47.521.48	33.2148
ACIDS & ALKALIS	RAL 4001	VIOLET	MC49	47.521.49	33.2149
AIR IN VENTILATION SYSTEMS	RAL 9010	WHITE	MC50	47.521.50	33.2150
FLAMMABLE GASES	RAL 1021	YELLOW	MC51	47.521.51	33.2151
FLOW DIRECTION MARKING	↑↑↑↑↑↑↑↑↑↑↑↑↑↑		FD30	47.521.30	33.2130

MULTI-COLOUR PERMUTATIONS

Multi-color variations for different media or functions.

DESCRIPTION	COLOUR	ORDER CODE	ISSA
WASTE MEDIA		MC40	47.521.40
BLACK WATER		MC40-41	47.521.40 + 47.521.41 + 47.521.40
WASTE OIL / USED OIL		MC40-42	47.521.40 + 47.521.42 + 47.521.40
BILGE WATER		MC40-43	47.521.40 + 47.521.43 + 47.521.40
EXHAUST GAS		MC40-44	47.521.40 + 47.521.44 + 47.521.40
GREY WATER		MC40-50	47.521.40 + 47.521.50 + 47.521.40
SEWAGE - CONTAMINATED		MC40-51	47.521.40 + 47.521.51 + 47.521.40
FRESH WATER		MC41	47.521.41
FRESH WATER, SANITARY		MC41-42	47.521.41 + 47.521.42 + 47.521.41
POTABLE WATER		MC41-43	47.521.41 + 47.521.43 + 47.521.41
DISTILLATE		MC41-44	47.521.41 + 47.521.44 + 47.521.41
GAS TURBINE WASH WATER		MC41-46	47.521.41 + 47.521.46 + 47.521.41
FEED WATER		MC41-47	47.521.41 + 47.521.47 + 47.521.41
COOLING FRESH WATER		MC41-49	47.521.41 + 47.521.49 + 47.521.41

CHILLED WATER		MC41-50	47.521.41 + 47.521.50 + 47.521.41
CONDENSATE		MC41-51	47.521.41 + 47.521.51 + 47.521.41
FUEL		MC42	47.521.42
HEAVY FUEL OIL (HFO)		MC42-40	47.521.42 + 47.521.40 + 47.521.42
AVIATION FUEL		MC42-41	47.521.42 + 47.521.41 + 47.521.42
BIOLOGICAL FUEL		MC42-49	47.521.42 + 47.521.49 + 47.521.42
GAS-TURBINE FUEL		MC42-50	47.521.42 + 47.521.50 + 47.521.42
MARINE DIESEL FUEL (MDO)		MC42-51	47.521.42 + 47.521.51 + 47.521.42
SEA WATER		MC43	47.521.43
DECONTAMINATION WATER		MC43-41	47.521.43 + 47.521.41 + 47.521.43
SEA WATER, SANITARY		MC43-42	47.521.43 + 47.521.42 + 47.521.43
BALLAST WATER		MC43-49	47.521.43 + 47.521.49 + 47.521.43
COOLING SEA WATER		MC43-51	47.521.43 + 47.521.51 + 47.521.43
NON-FLAMMABLE GASES		MC44	47.521.44
OXYGEN		MC44-41	47.521.44 + 47.521.41 + 47.521.44
INERT GAS		MC44-42	47.521.44 + 47.521.42 + 47.521.44
NITROGEN		MC44-43	47.521.44 + 47.521.43 + 47.521.44
REFRIGERANT		MC44-45	47.521.44 + 47.521.45 + 47.521.44
COMPRESSED AIR LP (LOW PRESSURE)		MC44-46	47.521.44 + 47.521.46 + 47.521.44
COMPRESSED AIR HP (HIGH PRESSURE)		MC44-48	47.521.44 + 47.521.48 + 47.521.44
CONTROL AIR / REGULATING AIR		MC44-49	47.521.44 + 47.521.49 + 47.521.44
BREATHING AIR*		MC44-50	47.521.44 + 47.521.50 + 47.521.44
BREATHING GAS*		MC44-51	47.521.44 + 47.521.51 + 47.521.44
AIR AND SOUNDING PIPES		MC45	47.521.45
WASTE MEDIA		MC45-40	47.521.45 + 47.521.40 + 47.521.45
FRESH WATER		MC45-41	47.521.45 + 47.521.41 + 47.521.45
FUEL		MC45-42	47.521.45 + 47.521.42 + 47.521.45
SEA WATER		MC45-43	47.521.45 + 47.521.43 + 47.521.45
NON-FLAMMABLE GASES		MC45-44	47.521.45 + 47.521.44 + 47.521.45
OIL OTHER THAN FUELS		MC45-46	47.521.45 + 47.521.46 + 47.521.45
STEAM		MC45-47	47.521.45 + 47.521.47 + 47.521.45
FIRE FIGHTING		MC45-48	47.521.45 + 47.521.48 + 47.521.45
ACIDS, ALKALIS		MC45-49	47.521.45 + 47.521.49 + 47.521.45
VENTILATION SYSTEM		MC45-50	47.521.45 + 47.521.50 + 47.521.45
FLAMMABLE GASES		MC45-51	47.521.45 + 47.521.51 + 47.521.45
ACIDS & ALKALIS		SC49	47.521.49

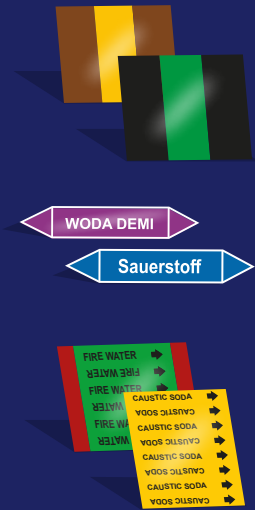
OIL OTHER THAN FUELS		MC46	47.521.46
THERMAL FLUID		MC46-41	47.521.46 + 47.521.41 + 47.521.46
LUBRICATION OIL FOR GAS TURBINES		MC46-43	47.521.46 + 47.521.43 + 47.521.46
HYDRAULIC FLUID		MC46-44	47.521.46 + 47.521.44 + 47.521.46
LUBRICATION OIL FOR STEAM TURBINES		MC46-47	47.521.46 + 47.521.47 + 47.521.46
LUBRICATION OIL FOR GEARS		MC46-49	47.521.46 + 47.521.49 + 47.521.46
LUBRICATION OIL FOR INT. COMBUSTION ENGINES		MC46-51	47.521.46 + 47.521.51 + 47.521.46
STEAM		MC47	47.521.47
STEAM FOR HEATING PURPOSES		MC47-40	47.521.47 + 47.521.40 + 47.521.47
DRIVING STEAM		MC47-43	47.521.47 + 47.521.43 + 47.521.47
EXHAUST STEAM		MC47-50	47.521.47 + 47.521.50 + 47.521.47
SUPPLY STEAM		MC47-51	47.521.47 + 47.521.51 + 47.521.47
FIRE FIGHTING / FIRE PROTECTION		MC48	47.521.48
FIRE-FIGHTING WATER		MC48-43	47.521.48 + 47.521.43 + 47.521.48
FIRE-FIGHTING GAS		MC48-44	47.521.48 + 47.521.44 + 47.521.48
SPRINKLER WATER		MC48-46	47.521.48 + 47.521.46 + 47.521.48
SPRAY WATER		MC48-49	47.521.48 + 47.521.49 + 47.521.48
FIRE-FIGHTING POWDER		MC48-50	47.521.48 + 47.521.50 + 47.521.48
FIRE-FIGHTING FOAM		MC48-51	47.521.48 + 47.521.51 + 47.521.48
AIR IN VENTILATION SYSTEMS		MC50	47.521.50
DISCHARGE AIR		MC50-40	47.521.50 + 47.521.40 + 47.521.50
MECHANICAL SUPPLY AIR - COLD		MC50-41	47.521.50 + 47.521.41 + 47.521.50
NATURAL EXHAUST AIR		MC50-42	47.521.50 + 47.521.42 + 47.521.50
ATMOSPHERIC AIR		MC50-43	47.521.50 + 47.521.43 + 47.521.50
MECHANICAL EXHAUST AIR		MC50-44	47.521.50 + 47.521.44 + 47.521.50
DECONTAMINATED SUPPLY AIR		MC50-45	47.521.50 + 47.521.45 + 47.521.50
MECHANICAL RECIRCULATED AIR		MC50-46	47.521.50 + 47.521.46 + 47.521.50
MECHANICAL SUPPLY AIR - WARM		MC50-47	47.521.50 + 47.521.47 + 47.521.50
SMOKE CLEARANCE		MC50-48	47.521.50 + 47.521.48 + 47.521.50
CONDITIONED SUPPLY AIR		MC50-49	47.521.50 + 47.521.49 + 47.521.50
NATURAL SUPPLY AIR		MC50-51	47.521.50 + 47.521.51 + 47.521.50
FLAMMABLE GASES		MC51	47.521.51
HYDROGEN		MC51-41	47.521.51 + 47.521.41 + 47.521.51
ACETYLENE		MC51-44	47.521.51 + 47.521.44 + 47.521.51
LIQUID GAS		MC51-49	47.521.51 + 47.521.49 + 47.521.51

* Intended for use in submarines for distribution systems used for breathing air from cylinders.



DESIGN AND DIMENSIONS

A-SPE pipe markers can be produced in accordance with the specific requirements of our customers and can be designed to comply with one of the following regulations:

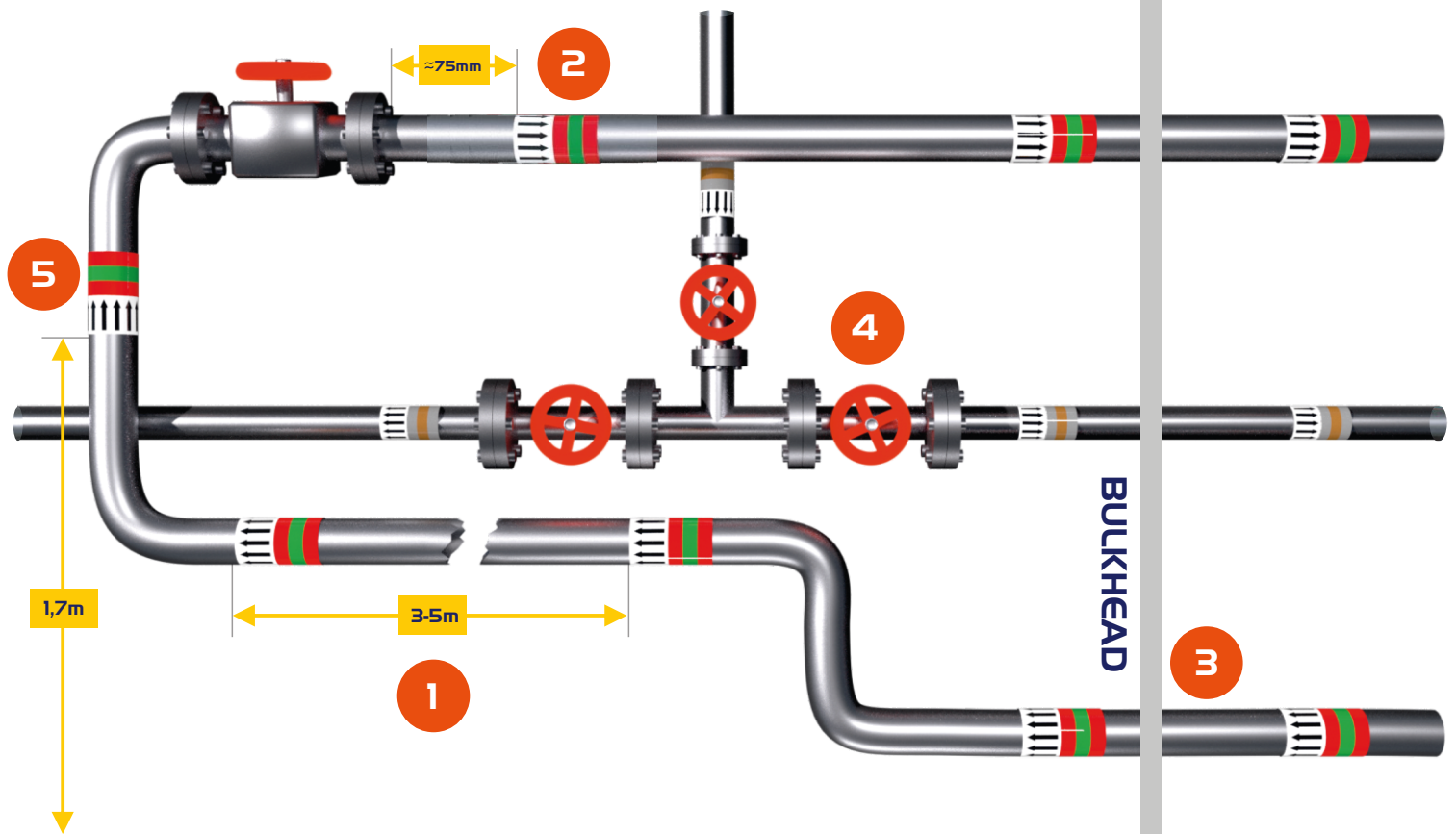


ISO 14726:2008
BS-1710 / BS-4800
ANSI/ASME A13-1
TRGS-201

A-SPE tapes and markers can be printed in any language based on translation provided by a customer.

NOMINAL PIPE DIAMETER	PIPE DIAMETER (INCH)	MARKER LENGTH (MM)	LETTER HEIGHT (MM)	ARROW HEIGHT (MM)
DN15	0,5"	6,5	16	100
DN20	0,75"	13	16	115
DN25	1"	13	16	135
DN32	1,25"	19	19	165
DN40	1,5"	19	19	190
DN50	2"	19	19	230
DN65	2,5"	32	32	270
DN80	3"	32	32	320
DN100	4"	32	32	395
DN150	6"	32	32	530
DN200	8"	32	32	760
DN250	10"	32	32	945
DN300	12"	32	32	1120
DN400	16"	32	32	1400
DN450	18"	32	32	1580
DN500	20"	32	32	1750
DN750	28"	32	32	2800

- Each pipe marker is dedicated to a particular pipe diameter.
- The table shows recommended marker dimensions for most popular nominal pipe sizes. Each marker length comes with suitable font and arrow sizes.
- The sizes include a minimum 30mm overlap, however they do not include any additional pipe coatings like insulation etc.
- Information about insulation thickness or other coatings should be provided with other details necessary for the quotation.



INSTALLATION TIPS

During application the tape should overlap 2-4 cm

Properly installed markers serve for many years and improve the level of occupational safety, helping to reduce the amount of downtime and accidents. According to the ISO 14726:2008 regulation, the following points should be considered during the installation of pipe markers:

- 1 Markers should be installed within a 3-5m distance between each marking point on a horizontal and vertical pipeline. Branched pipes or close proximity to pipes carrying different media may require a more frequent marking.
- 2 In case of valves, markers should be installed at a distance of approx. 75mm from the corresponding flange.
- 3 Markers should be mounted at all penetration points in walls, bulkheads or decks.
- 4 Markers should be installed on each side of the pipe branch.
- 5 In case of a vertical piping system, markers should be applied at a height of approx. 170cm to ensure good visibility.

The exact estimation of the quantity of markers and installation points is determined at the stage of material preparation. A-SPE specialists can offer you professional advice based on the provided pipeline scheme and detailed specifications.



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