

## Offshore



Competence and solutions for  
self-acting control valves

PRESSURE CONTROL | LEVEL CONTROL | SERVICE

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## Offshore

Offshore structures include drilling platforms, production platforms and wind turbines. Depending on the ocean depth, they are anchored to fixed structures in the seabed or stabilized with steel cables. Others can change deployment location and are held in place by dynamic positioning systems.

Offshore platforms have working and living areas and must withstand extremely severe weather conditions in highly corrosive maritime atmospheres. Various circuits in their facilities, e.g. extinguishing or cooling water systems, are fed from seawater. Often, explosive atmospheres (ATEX) are created. Accordingly, the materials of the components used are carefully selected. They must meet the strict standards of the classification societies.

## Requirements

- » Acceptance by ship classification societies
- » Materials resistant to corrosion and salt water
- » NORSOK
- » ATEX

Offshore



# The right selection of materials makes a difference

## Corrosion-resistant metals

- » The higher the PREN, the more resistant to pitting and crevice corrosion
- » Alloys with a PREN of  $> 33$  are classified as sea water resistant
- » Hastelloy<sup>®</sup> C-4 and Titanium are considered being highly resistant to sea water
- » A higher PREN is required for an increasing salt content and/or rising temperature

Material	No.	PREN*
Stainless steel	1.4404	23,0 - 28,0
	1.4571	25,0
Duplex	1.4462	30,0 - 38,0
	1.4539	34,0 - 40,0
Super Duplex	1.4410	35,0 - 42,0
	1.4501	37,0 - 44,0
Cronifer 1925hMO	1.4529	41,0 - 48,0
245 SMO®	1.4547	42,0 - 48,0
Hastelloy® C-4	2.4610	
Titanium	3.703	

## Selection of materials



# Overview of offshore applications

Typical field of application –  
Oil and gas extraction

Drilling platform



FPSO\* ship

Marine wind park

Typical field of application –  
Power generation

Hydrogen production

Converter platform



## Products for mechanical pressure control

Valve for medium to high flow rates

DM 652

Liquids, gases up to 130 °C, steam up to 190 °C | single-seated, balanced  
| soft seal | diaphragm controlled | completely made of stainless steel |  
ATEX version optional

DN	15 - 50
G	1/2 - 2
PN	16 - 40
$p_1$	up to 40 bar
$p_2$	0.02 - 12 bar
$K_{vs}$	5 - 22 m <sup>3</sup> /h
T	130 °C / 190 °C

Typical field of application -  
Lube oil supply





## High pressure valve for small to medium flow rates

DM 510

Liquids, gases up to 130 °C, steam up to 400 °C | single-seated, non-balanced | soft or metallic seal | diaphragm, piston or bellows-controlled | NACE-compatible | ATEX version optional

DN	15 - 50
G	3/8 - 2
PN	16 - 320
$p_1$	up to 320 bar
$p_2$	2 - 160 bar
$K_{VS}$	0.2 - 5.5 m <sup>3</sup> /h
T	130 °C / 400 °C



Typical field of application –  
Waste water treatment plants



### Vacuum breaker for medium to very high flow rates

VV 34

Liquids, gases up to 250 °C | soft or metallic seal | spring controlled | completely made of stainless steel | NACE-compatible | ATEX version optional

DN	20 - 250
G	1/2A - 2 1/2A
PN	6 - 40
$p_2$	0.05 - 0.95 bar
$K_{VS}$	1.2 - 388 m <sup>3</sup> /h
T	250 °C

Typical field of application -  
Cooling water system



## Combined bleeding valve for sea water and small to very high flow rates

EB 3.54

Water, aggressive liquids up to 90 °C and seawater up to 40 °C | soft seal | body made of stainless steel, special materials such as Duplex, Super Duplex available

DN	25 - 100
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PN	40
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p	0.2 - 40 bar
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Q	3,300 Nm <sup>3</sup> /h
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T	90 °C
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Typical field of application –  
Pumps for sea water extraction



**Please send us your enquiry  
and allow us to advise you.**

Mankenberg GmbH  
Spenglerstrasse 99  
23556 Luebeck | Germany

Phone: +49 (0) 451-8 79 75 0

Fax: +49 (0) 451-8 79 75 99

[info@mankenberg.de](mailto:info@mankenberg.de)

[www.mankenberg.com](http://www.mankenberg.com)