

## Product/Application

### Steam & Condensate

✦ Gaskets	Type KlingerSil Marine F&S, SPWG
✦ Ball Valves	Type FSAB, MKHA, MKHE
✦ Level Gauges	Type MR25, MT100
✦ Control Valves	Type Klinger Control Valve
✦ Standard Valves	

### Gargo - LPG, LNG, Chemicals, Oil

✦ High Performance Butterfly Valves	Type MCONAXE
✦ High Performance Butterfly Valves	Type CRYOSEAL
✦ Ball Valves	Type INTEC MK200
✦ Gaskets	Type KlingerSil Marine F&S, SPWG/PTFE

### Oil - HFO, MGO, MDO, LO

✦ Ball Valves	Type FSAB, Klinger Wafer
✦ Gaskets	Type KlingerSil Marine F&S
✦ Standard Valves	
✦ Control Valves	Type Klinger Control Valve

### Exhaust Gas

✦ Indicator Cock	Type Klinger Indicator Cock
✦ High Performance Butterfly Valves	Type MCONAXE
✦ Gaskets	Type Milam, SPWG, KlingerSil Marine F&S

### Fire Isolating

✦ High Performance Butterfly Valves	Type MCONAXE Bronze
✦ Gaskets	Type KlingerSil Marine F&S

### Utility, Air, SW, FW, Oil

✦ Gaskets	Type KlingerSil Marine
✦ Standard Valves	



## Klinger Denmark

### Supplier to the Marine Industry since 1848

Klinger Denmark has since the foundation of the company in 1848 been a supplier to the Marine Industry. Our customers are ship-builders and their sub-suppliers as well as shipping companies that own and operate vessels.

### Connect with Quality

When choosing Valves and Gaskets from Klinger you Connect with Quality. We also provide our customers with know-how and experience from our technical experts- 24 hours a day, 365 days a year.

We are committed to supporting our customers with Valves and Gaskets throughout the lifetime of the ship. Short response to any inquiry and a large stock of Valves and Gaskets from our production ready to ship, is your guarantee for short delivery time.

### Trusted Worldwide

We employ more than 2.000 people worldwide in +30 operating companies. In addition we cooperate with an extensive network of partners in strategic ports worldwide, to serve our Marine customers.

*We constantly improve availability of our products and aim at Global presence.*

# Klinger Denmark

– supplier to the Marine Industry since 1848



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### MKHA Ball Valve - Steam & Condensate

- ♦ Suitable for up to 30 bar steam
- ♦ Spring loaded seats
- ♦ 100% tight shut-off
- ♦ Temperature range from -196 – 400 Deg. C
- ♦ Tested acc to; FS API 607/4.Ed., TA-Luft, Emission test VDI 2440, EN161 shut-off for gas burners, EN264 shut-off liquid fuels



### 2- and 3-way Control Valves - Fuel & Steam

- ♦ Pneumatic or electric operated
- ♦ Leak Class IV for metal Plug
- ♦ Leak Class VI for PTFE/Gr plug
- ♦ Different bonnet designs; finned, extended, Bellow or std.
- ♦ Plugs for Microflow, equal %, Linear or quick lift
- ♦ Integrated Cage plug for low noise



### INTEC MK200 Ball Valve - Chemicals

- ♦ Reinforced stem design for higher safety in automation
- ♦ Dynamic primary sealing by floating ring principle
- ♦ Stuffing box system absolutely ageing resistant
- ♦ Three side chambering of the seat ring using nitrogenium sintered high quality KFGN
- ♦ Reduction of abrasion, microdiffusion and operating torque
- ♦ With KFCM-sealing material applicable up to +300°C
- ♦ Spring loaded seats
- ♦ Certified acc. to German clean air act VDI 2440, -40°C up to +220°C, 100.000 cycles
- ♦ Fire-Safe acc. to BS 6755, EN ISO 10497, API 607
- ♦ Type tested by VdTÜV 1065, VbF, Gas-HI-VO, WHG
- ♦ Classification acc. to SIL 3 (Safety Integrity Level)



### MCONAXE HP Butterfly Valve – 850 Deg. C Exhaust Gas

- ♦ Low torque = less wear / small actuator
- ♦ Zero leakage
- ♦ Self alignment pressure equalized
- ♦ Polygon drive
- ♦ K-seal for inert protection of stuffing box
- ♦ Spring loaded stuffing box
- ♦ Also used for; LPG, fire fighting



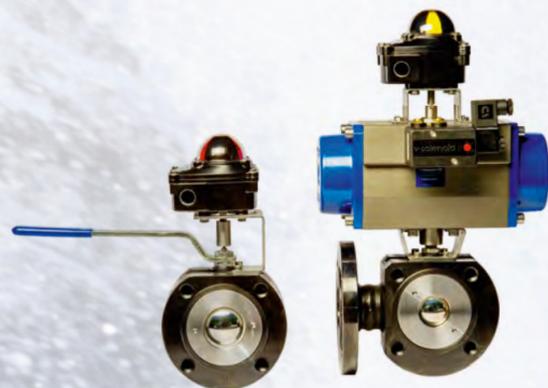
### MCONAXE HP Butterfly Valve – Fire fighting system

- ♦ Complete in bronze
- ♦ Fire Safe approval API 607 / 4th. Ed.
- ♦ Low torque = less wear / small actuator
- ♦ Zero leakage
- ♦ Self alignment pressure equalized
- ♦ Polygon drive
- ♦ Double sided, self adjusting stuffing box
- ♦ Also used for; LNG, LPG, Exhaust Gas Regulation (EGR)



### WESTAD CRYOSEAL Butterfly Valve - For LNG

- ♦ Triple offset design
- ♦ Acc to NORSOK
- ♦ Inspection door for easy maintenance
- ♦ Extended bonnet with Gland free from freezing area
- ♦ Fire safe acc to BS 6755-1987



### 2- and 3-way Ball Valve - MGO/IMDO

- ♦ Fire Safe approval API 607 / 4th. Ed.
- ♦ Special metal core seat design to suit hot oil applications



### Klinger Indicator Cock - Exhaust Gas

- ♦ Nimonic trim for extended service intervals
- ♦ End cap nut for extra protection against exhaust gas

### Klingersil Marine & Klingersil Marine F&S Gaskets

- ♦ Designed to meet the requirements from IMO resolution MPEC 197(62). 'Guidelines for the development of the inventory of hazardous material'
- ♦ Lloyds type approval
- ♦ Fire Safe acc. to API 607 / 4th Ed. (F&S)
- ♦ KLINGERSIL Marine F&S can be used for Fuel, Steam and condensate (PH up to 11)
- ♦ KLINGERSIL Marine is a universal material for FW, SW, Air etc.



### MR25 (Reflex) & MT100 (Transparent) - Steam Level Gauge

- ♦ Complete Gauge on stock incl. Class. Test Certificat from Lloyds, GL, BV and DNV
- ♦ Borosilicate Glass with very low coefficiento Thermal expansion - 20Deg. C – 300 Deg C. = 4,1 x 10-6/K
- ♦ High purity Graphite and KLINGERSIL MARINE F&S Gasket material



### MKHE Ball Valve - Steam

- ♦ Suitable up to 24 bar steam
- ♦ Spring loaded seat
- ♦ Springloaded stuffing box
- ♦ Tight shut-off – Class A
- ♦ Suitable for temp. from -60 to 300 Deg. C
- ♦ Tested acc. to; FS API 607 / 4th Ed., emission test acc. to VDI 240



### FSAB 2 – and 3-way Ball Valve - Steam & Fuel

- ♦ Multipurpose valve for steam up to 24 bar
- ♦ Fuel oil up to 30 bar / 160 Deg. C
- ♦ Fire Safe approval API 607 / 4th. Ed.



### Standard Valves

