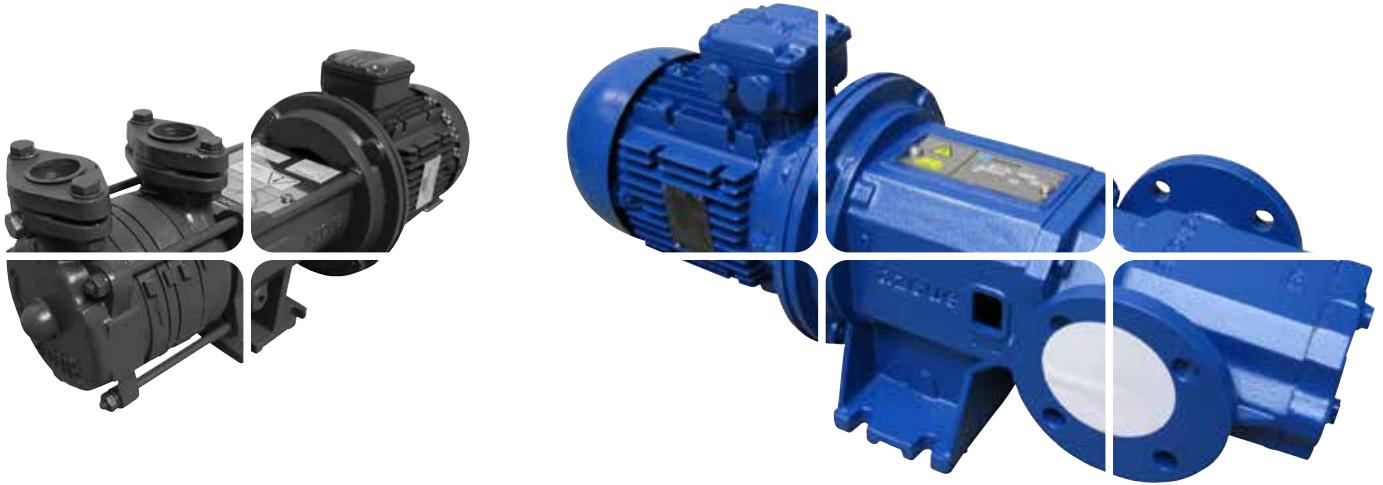




## Marine & Offshore Equipment and Supplies



## Centrifugal & Positive Displacement Pumps

### TSS SUPPLIES THE FOLLOWING

#### PUMP DESIGNS:

- ✓ Base plate
- ✓ Close coupled
- ✓ Diaphragm
- ✓ Gear
- ✓ In-line
- ✓ Monoblock
- ✓ Multi-stage
- ✓ Piston
- ✓ Side channel
- ✓ Single, Twin & Triple screw
- ✓ Split case
- ✓ Submersible

### TSS SUPPLIES PUMPS FOR THE

#### FOLLOWING APPLICATIONS:

- ✓ Ballast
- ✓ Bilge
- ✓ Boiler feed
- ✓ Booster
- ✓ Chemicals
- ✓ Dirty oil
- ✓ Emergency fire
- ✓ General service
- ✓ HFO transfer
- ✓ Hot water circulation
- ✓ HT and LT fresh water cooling
- ✓ LO transfer
- ✓ MDO Transfer
- ✓ Sewage
- ✓ Waste water

### TSS HAS PRICE/DISCOUNT

#### AGREEMENTS WITH THE

- ✓ Allweiler
- ✓ Azcue
- ✓ Desmi
- ✓ DP Pumps
- ✓ **Graco**
- ✓ Grindex
- ✓ Grundfos
- ✓ IMO
- ✓ Lowara
- ✓ Saer
- ✓ Speck
- ✓ Sterling SIHI
- ✓ Wilden



## Pump Spare Parts



### EUROPEAN MANUFACTURERS

- ✓ Allweiler
- ✓ Azcue
- ✓ Desmi
- ✓ DP Pumps
- ✓ Garbarino
- ✓ **Graco**
- ✓ Grundfos
- ✓ Hamworthy
- ✓ IMO
- ✓ Iron
- ✓ Moineau (PCM)
- ✓ Mono
- ✓ Netzsch
- ✓ Thune Eureka
- ✓ Wilden

### ASIAN MANUFACTURERS

- ✓ Heishin
- ✓ Naniwa
- ✓ Shinko
- ✓ Shin Shin
- ✓ Taiko Kikai
- ✓ Teikoku

### TSS STOCKS VARIOUS PUMP

#### SPARE PARTS SUCH AS:

- ✓ Bearings
- ✓ Circlips
- ✓ Gaskets
- ✓ Mechanical seals
- ✓ Oil Seals
- ✓ O-Rings
- ✓ Shafts
- ✓ Wear rings



## Mechanical Seals



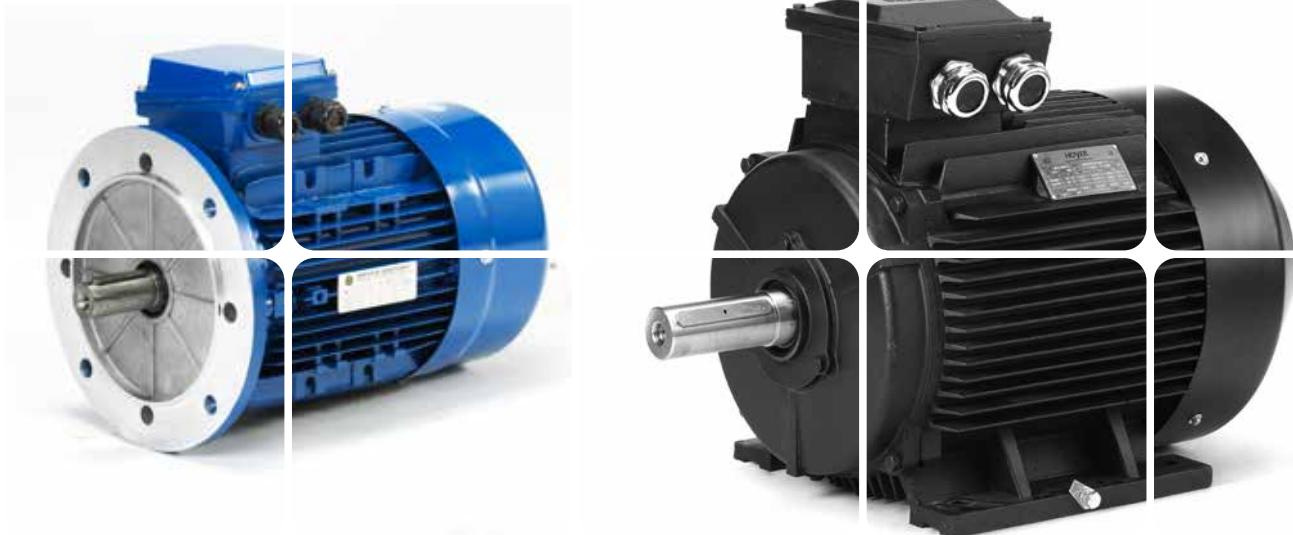
TSS SUPPLIES AND STOCKS  
THE FOLLOWING TYPES OF  
MECHANICAL SEALS:

- ✓ Conical Spring
- ✓ Parallel Spring Diaphragm
- ✓ Balanced Diaphragm
- ✓ Parallel Spring O-Ring Mounted
- ✓ Wave Spring
- ✓ Elastomeric Bellow
- ✓ PTFE Wedge
- ✓ Cartridge

TSS SUPPLIES INTERCHANGEABLE  
MECHANICAL SEALS FOR THE  
FOLLOWING MANUFACTURERS:

- ✓ AES
- ✓ Burgmann
- ✓ Chesterton
- ✓ John Crane
- ✓ Pillar
- ✓ Roten
- ✓ Vulcan

TSS HAS CROSS REFERENCE LISTS  
AVAILABLE FOR MOST MAJOR  
BRANDS. PROVIDE US WITH THE  
PUMP MAKER AND PUMP TYPE  
AND WE CAN CHECK OUR LIST TO  
SEE IF WE HAVE IDENTIFIED THE  
MECHANICAL SEAL.



## E-Motors & Electrical Components



TSS IS STOCKIST & EXCLUSIVE  
MARINE DISTRIBUTOR FOR  
HOYER MOTORS (DENMARK)

TSS SUPPLIES VARIOUS TYPES  
OF E-MOTORS SUCH AS:

- ✓ Brake
- ✓ Drip-proof IP23
- ✓ Explosion proof (ATEX)
- ✓ IE1, IE2, IE3, IE4
- ✓ Single speed & 2-speed

HOYER MOTORS CAN BE FOUND O/B  
ON THE FOLLOWING EQUIPMENT:

### PUMPS

- ✓ Allweiler
- ✓ Garbarino
- ✓ Grundfos
- ✓ IMO
- ✓ Sterling SIHI

### CRANES

- ✓ Palfinger Dreggen
- ✓ SMST (part of Huisman)
- ✓ TTS Group

### WINCHES & HOISTS

- ✓ SEC
- ✓ TTS Group

### HYDRAULIC POWER PACKS

- ✓ Bosch Rexroth
- ✓ Parker Hannifin

And also on Compressors, Fans,  
HVAC, Thruster and Launch &  
Recovery Systems

TSS ALSO SUPPLIES RELATED  
ELECTRICAL COMPONENTS SUCH  
AS:

- ✓ Cables
- ✓ Cable glands
- ✓ Contactors
- ✓ Frequency converters
- ✓ Relais
- ✓ Soft starters
- ✓ Switches

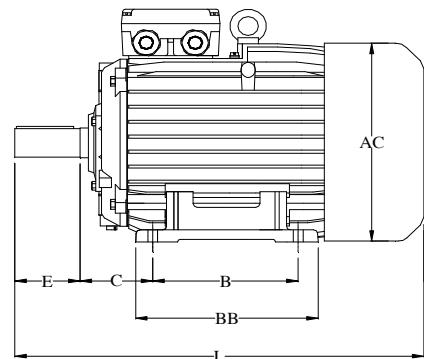
FROM FOLLOWING PREFERRED  
MANUFACTURERS:

- ✓ ABB
- ✓ CEAG
- ✓ Eaton
- ✓ Telemecanique
- ✓ Siemens
- ✓ Schneider
- ✓ Stahl

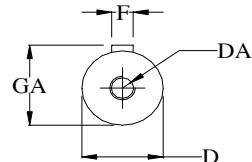
Hoyer Marine electric Motors are type or design approved by several major international marine classification societies.

Germanischer Lloyd

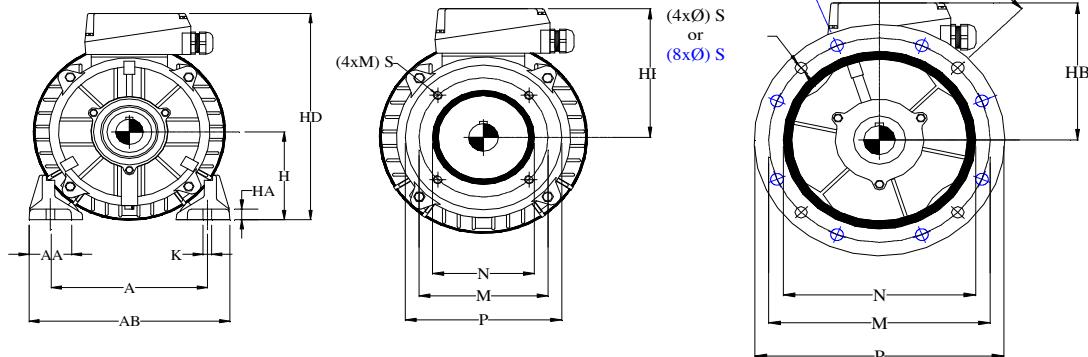




B	C	E	L	AC	BB



D	F	DA	GA



**B3**

**B14**

**B5**

A	AA	AB	H	K	HA	HB	HD	N	M	P	S

Make	Type

kW	Rpm	Voltage Δ/Y	Amp	Hz	IP

B3	B14	B5

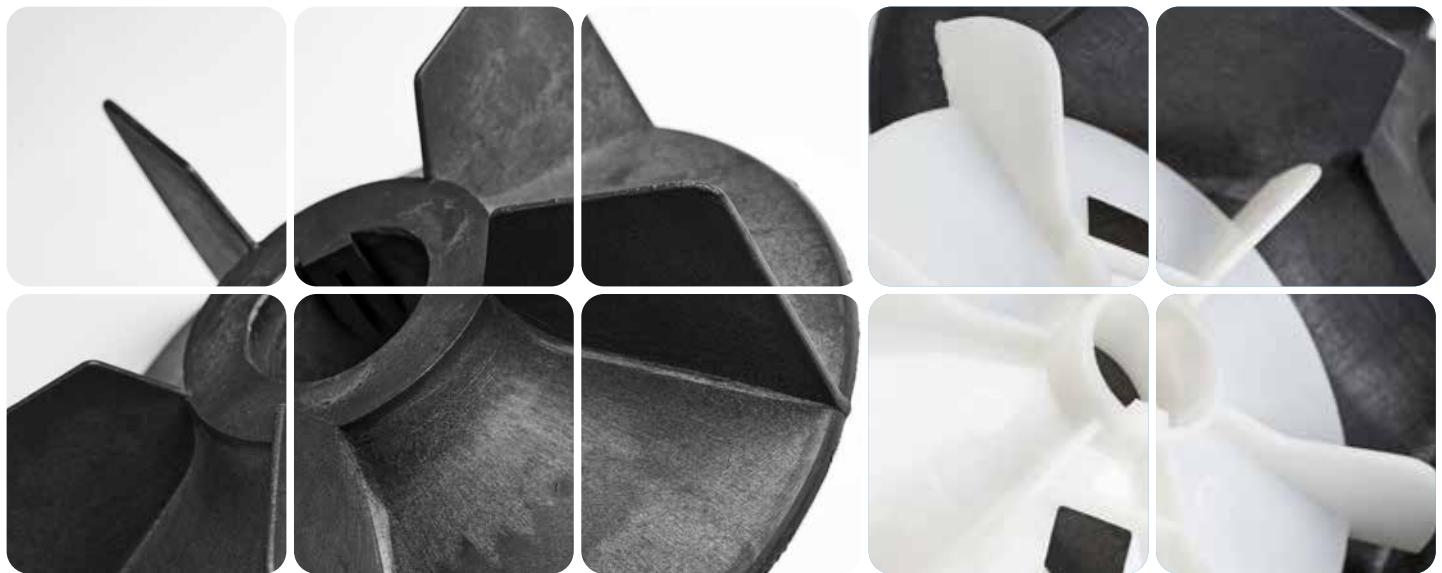
Options

TSS Rotterdam B.V. is the exclusive premium marine distributor of Hoyer Motors in The Netherlands.

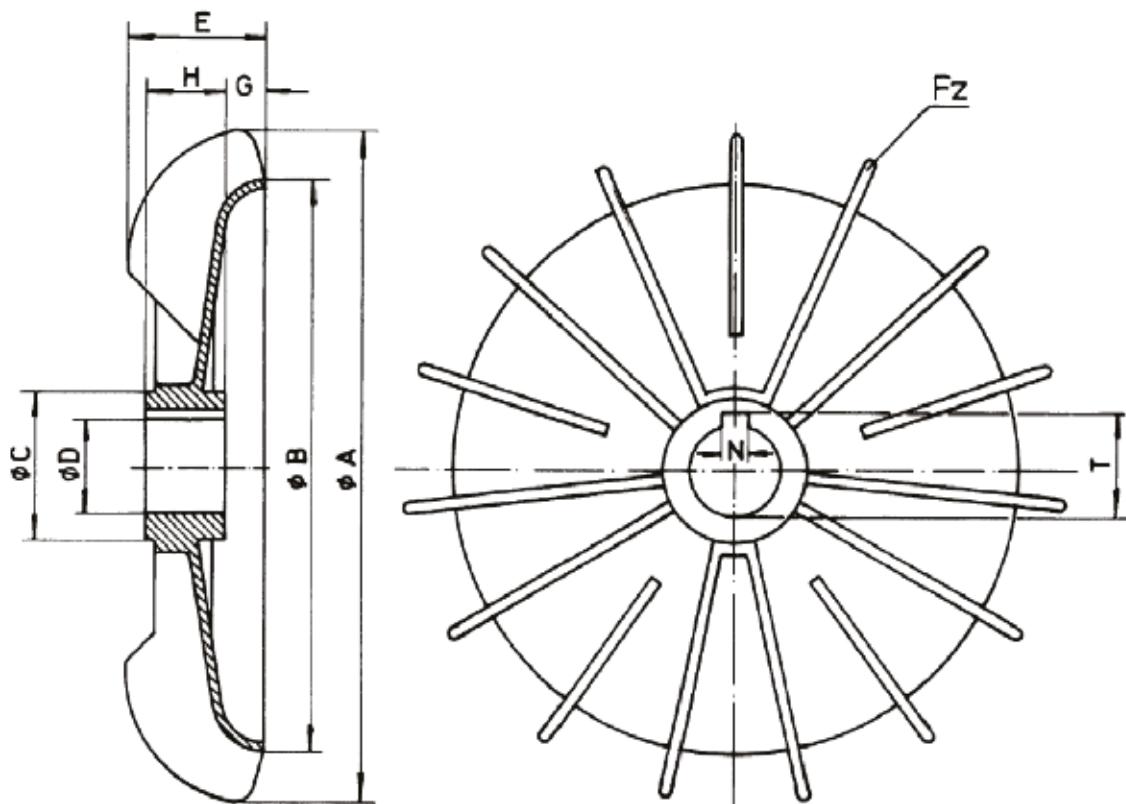
Our e-motors are type or design approved by several major international marine classification societies such as Germanischer Lloyd (GL), Bureau Veritas (BV) and American Bureau of Shipping (ABS).

Furthermore Hoyer e-motors can be supplied with certificates from all major international marine classification societies such as Lloyd's Register (LR), Rina, RMRS, DNV, NKK and CCS.





## E-Motor Fan Selection



Motortype	Vermogen / Power	kW	Toerental / Speed	rpm
-----------	------------------	----	-------------------	-----

Materiaal / Material	Draairichting / Rotation direction	CW / CCW*
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A	B	C	D	E	H	FZ=Qty	G	N	T	Maatvoering in mm Dimension in mm

Bijzonderheden / Remarks:
---------------------------

\* gezien tegen aandrijfjas / seen against driven shaftend



## Graco Products



### CLEANING

#### HYDRA-CLEAN AIR-OPERATED

##### CART-MOUNT

- ✓ Designed for high pressure & high volume (deck & tank) cleaning
- ✓ Operated on base oil, fresh & salt water
- ✓ Usage in hazardous areas (ATEX approved)

#### HYDRA-CLEAN AIR-OPERATED

##### DRUM-MOUNT

- ✓ Applying chemicals and detergents onto surface
- ✓ Washing down
- ✓ General transfer of fluids & chemical injection into pressurised systems

### SURFACE PREPARATION & MAINTENANCE JOBS

#### ECOQUIP 2TM EQP

- ✓ Removal of old coatings on deck
- ✓ Corrosion control on steel structures on board
- ✓ Reduction of dust
- ✓ Usage in hazardous areas (ATEX approved)

#### MERKUR

- ✓ Spot repair and small maintenance jobs

#### KING

- ✓ Cargo hold maintenance and bigger maintenance jobs

### FLUID TRANSFER

#### HUSKY

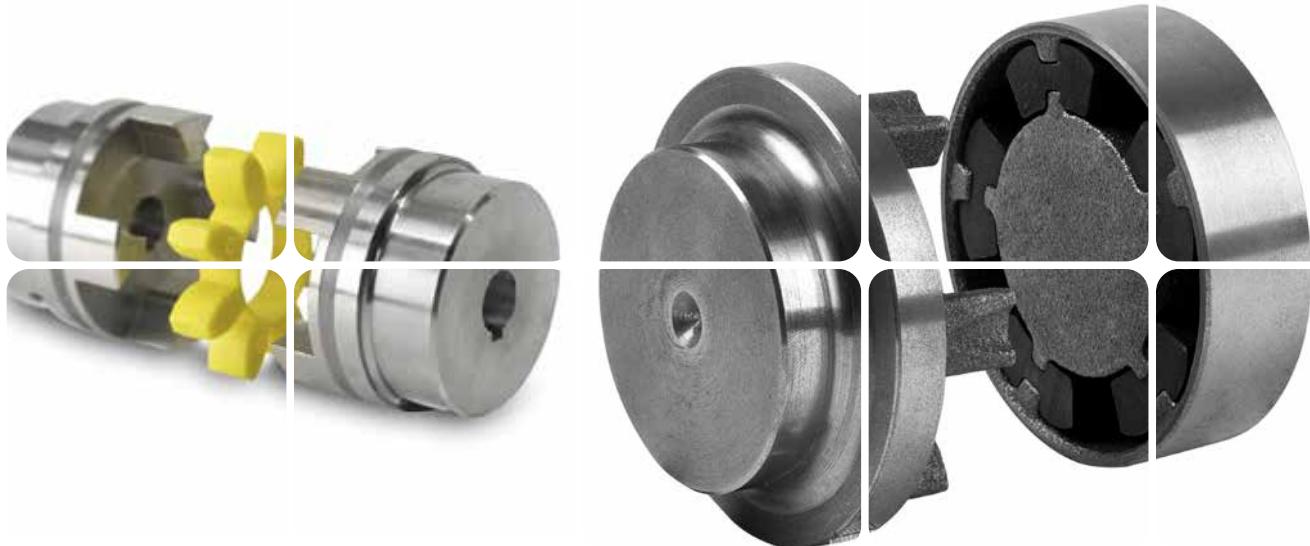
- ✓ Air operated double diaphragm pump
- ✓ Bilge evacuation, deck wash, sludge out of the cargo area
- ✓ Usage in hazardous areas (ATEX approved)

#### FAST BALL

- ✓ Light duty oil & grease pump
- ✓ Transfer (short-run) of petroleum and synthetic based oils

#### FIRE BALL

- ✓ Heavy duty oil & grease pump
- ✓ Continuous duty



## Couplings & Inserts



### TSS STOCKS AND SUPPLIES THE

### FOLLOWING TYPE OF COUPLINGS:

- ✓ Elastomeric couplings
- ✓ Curved tooth couplings
- ✓ Torsionally flexible couplings
- ✓ Curved jaw couplings
- ✓ Rigid couplings

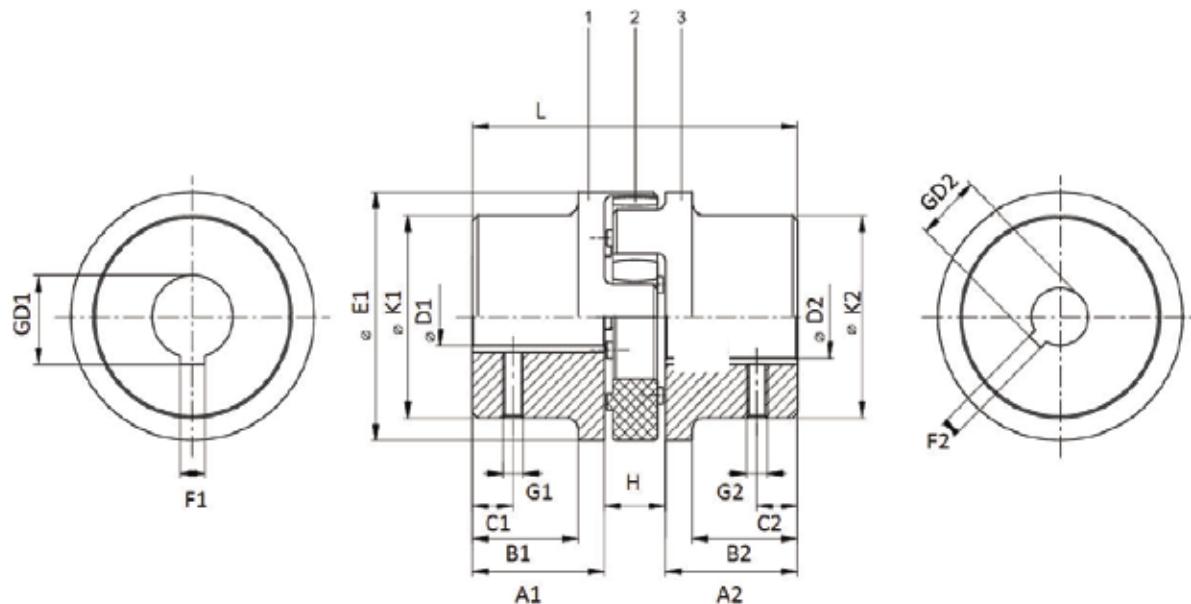
### TSS SUPPLIES THE FOLLOWING

### MANUFACTURERS:

- ✓ Centa
- ✓ N-Eupex
- ✓ Nor-Mex
- ✓ Poly-Norm
- ✓ Rexnord-Omega
- ✓ Rotex
- ✓ Spidex
- ✓ TB-Woods (Dura-Flex)
- ✓ Vulkan

### TSS KEEPS IN STOCK MOST

COMMONLY USED SIZES AND TYPES  
THEREFORE WE GUARANTEE SHORT  
LEAD TIMES.



Vermogen / Power

kW

Toerental / Speed

tpm

## 1) COUPLING HALF

A1	B1	C1	D1	F1	G1	GD1	K1						
					M.....								

Maatvoering in mm / Dimensions in mm

## 2) COUPLING INSERT / RUBBER

Bijzonderheden/Remarks:

## 3) COUPLING HALF

A2	B2	C2	D2	F2	G2	GD2	K2						
					M.....								

Maatvoering in mm / Dimensions in mm

If you require spline hub please specify the relevant DIN / SAE code

Bijzonderheden/Remarks:



## Bearings



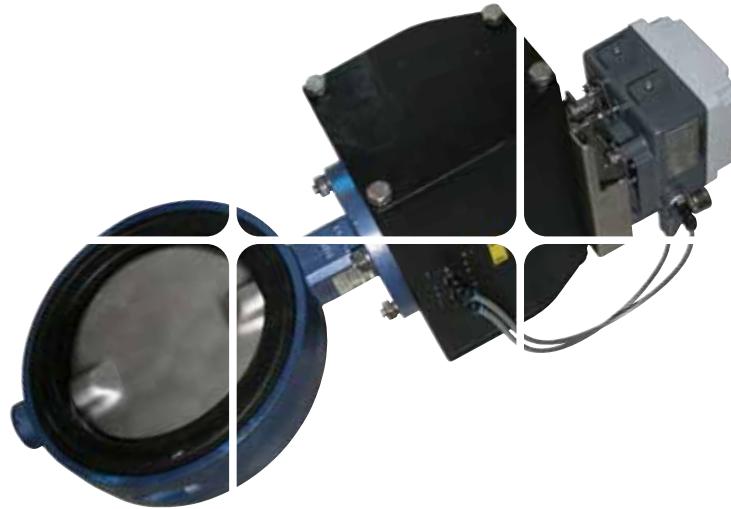
TSS STOCKS AND SUPPLIES THE FOLLOWING TYPE OF BEARINGS:

- ✓ Deep Groove Ball Bearings
- ✓ Angular Contact Ball Bearings
- ✓ Cylindrical Roller Bearings
- ✓ Self-Aligning Ball Bearings
- ✓ Taper Roller Bearings
- ✓ Spherical Roller Bearings
- ✓ Thrust Ball Bearings
- ✓ Cylindrical Roller Thrust Bearings
- ✓ Spherical Roller Thrust Bearings
- ✓ Bearing Housings

TSS SUPPLIES THE FOLLOWING MANUFACTURERS:

- ✓ INA
- ✓ FAG
- ✓ NTN
- ✓ NSK
- ✓ SKF
- ✓ TIMKEN

TSS SPECIALIZES IN HARD-TO- OBTAIN BEARINGS. TSS IS MEMBER OF A BEARING ASSOCIATION WHICH ENABLES US TO CHECK STOCKS ONLINE WORLDWIDE.



## Valves, Flanges & Gaskets



### VALVES

#### TSS SUPPLIES THE FOLLOWING

##### TYPE OF VALVES:

- ✓ Angle Valves
- ✓ Ball Valves
- ✓ Butterfly Valves
- ✓ Check Valves
- ✓ Gate Valves
- ✓ Globe Valves
- ✓ Knife Gate Valves
- ✓ Needle Valves
- ✓ Non Return Valves
- ✓ Overboard Valves
- ✓ Plug Valves
- ✓ Relief Valves
- ✓ Steam Valves
- ✓ Storm Valves
- ✓ Quick Closing Valves

#### TSS ALSO SUPPLIES FOLLOWING RELATED PRODUCTS:

- ✓ Actuators
- ✓ Ejectors
- ✓ Mud Boxes
- ✓ Seat Rings (PTFE)
- ✓ Strainers

### FLANGES

#### TSS SUPPLIES THE FOLLOWING

##### TYPE OF FLANGES:

- ✓ Blind
- ✓ Lap-joint
- ✓ Slip-on
- ✓ Socket-weld
- ✓ Threaded
- ✓ Weld-neck

##### PRESSURE RANGE:

- ✓ ANSI :CLASS 150 - CLASS 2500
- ✓ DIN :PN6 - PN40
- ✓ JIS :5K - 40K

##### IN VARIOUS MATERIALS SUCH AS:

- ✓ Aluminium
- ✓ Bronze
- ✓ Duplex
- ✓ Stainless Steel

### GASKETS

#### TSS SUPPLIES THE FOLLOWING

##### TYPE OF GASKETS:

- ✓ Flat Gaskets
- ✓ Gasket Sheets
- ✓ Spiral Wound Gaskets

##### IN VARIOUS (NON-ASBESTOS) MATERIALS SUCH AS:

- ✓ EPDM
- ✓ Graphite
- ✓ Nitrile (Buna-N)
- ✓ Neoprene
- ✓ PTFE (Teflon)
- ✓ Silicone
- ✓ Urethane
- ✓ Viton

##### TSS IS ABLE TO SUPPLY CUSTOM MADE GASKETS IN ABOVE MATERIALS.



## Compressors & Spares



### TSS SUPPLIES (NEW OR RECON)

UNITS & (NEW) SPARE PARTS FOR  
THE FOLLOWING REFRIGERANT  
COMPRESSOR MANUFACTURERS:

- ✓ Bitzer
- ✓ Bock
- ✓ Carlyle
- ✓ Carrier
- ✓ Copeland
- ✓ Daikin
- ✓ Mycom
- ✓ Sabroe
- ✓ Stal
- ✓ York

### TSS SUPPLIES (NEW OR RECON)

UNITS & (NEW) SPARE PARTS FOR  
THE FOLLOWING EUROPEAN AIR  
COMPRESSOR MANUFACTURERS:

- ✓ Alup
- ✓ Atlas Copco
- ✓ Bauer
- ✓ Hamworthy
- ✓ Hatlapa
- ✓ Kaeser
- ✓ Sauer
- ✓ Sperre
- ✓ Tamrotor

### TSS SUPPLIES (NEW OR RECON)

UNITS & (NEW) SPARE PARTS FOR  
THE FOLLOWING ASIAN AIR COMPRESSOR  
MANUFACTURERS:

- ✓ Matsubara
- ✓ Mitsubishi
- ✓ Tanabe
- ✓ Teikoku
- ✓ Yanmar



## Hoses & Couplings



### COMPOSITE HOSES

TSS SUPPLIES THE FOLLOWING TYPE OF CARGO HOSES :

- ✓ Chemical
- ✓ Cryogenic (LNG & LPG)
- ✓ Hydrocarbons
- ✓ Submersible
- ✓ Vapour Recovery

THESE CARGO HOSES CAN BE FITTED WITH:

- ✓ Flanged Couplings (Fixed or Floating)
- ✓ Threaded Couplings (BSP or NPT)

FLANGED COUPLINGS CAN BE SUPPLIED ACCORDING TO THE FOLLOWING STANDARDS:

- ✓ ANSI
- ✓ DIN
- ✓ JIS

### STAINLESS STEEL HOSES

TSS SUPPLIES 3 TYPES OF CORRUGATED HOSES:

- ✓ Without braiding
- ✓ With 1 braiding
- ✓ With 2 braidings

TEMPERATURE RANGE FROM -200 UP TO +600 DEGR. CELSIUS

CORRUGATED HOSES CAN BE FITTED WITH VARIOUS CONNECTIONS:

- ✓ ANSI & DIN Flanges
- ✓ Camlock Couplings
- ✓ Inner & Outer Threads

### RUBBER HOSES

OUR PREFERRED PARTNERS FOR RUBBER HOSES ARE MAKER CONTITECH (EX-GOODYEAR) AND DUNLOP

- ✓ Bunker Hoses (Oil, Petrol, Potable water)
- ✓ Chemical Hoses
- ✓ Fire Hoses
- ✓ Steam Hoses
- ✓ Tankcleaning Hoses
- ✓ Vapour Recovery

HOSES CAN BE FITTED WITH VARIOUS COUPLINGS:

- ✓ Bauer
- ✓ Camlock
- ✓ Dry Break (for ex. TODO)
- ✓ Flanged
- ✓ Fire hose
- ✓ Guillemin
- ✓ Storz
- ✓ Tanktruck
- ✓ Threaded
- ✓ Weco



## Hydraulics



### TSS SUPPLIES THE FOLLOWING HYDRAULIC COMPONENTS:

- ✓ Cylinders
- ✓ Filter
- ✓ Flow Meters
- ✓ Gauges
- ✓ Hoses & Couplings
- ✓ Motors
- ✓ Pressure Switches
- ✓ Pumps
- ✓ Valves

### TSS SUPPLIES THE FOLLOWING MANUFACTURERS:

- ✓ Atos
- ✓ Bosch Rexroth
- ✓ Brueninghaus
- ✓ CAT
- ✓ Danfoss
- ✓ Denison
- ✓ Eaton
- ✓ Enerpac
- ✓ Hydac
- ✓ Hydromatik
- ✓ Kawasaki
- ✓ Parker
- ✓ Sauer Danfoss
- ✓ Staffa
- ✓ Vickers

### OTHER MANUFACTURERS UPON REQUEST



## Fire & Gas Detection



### SMOKE DETECTION:

- ✓ Apollo
- ✓ Autronica
- ✓ Cerberus
- ✓ Consilium
- ✓ Discovery
- ✓ Eltek
- ✓ Hekatron
- ✓ Hochiki
- ✓ Kidde
- ✓ Nippon Hakuyo
- ✓ Nittan
- ✓ Nohmi Bosai
- ✓ Orbis
- ✓ Safetec
- ✓ Salwico
- ✓ Servoteknikk
- ✓ Tyco

### HEAT DETECTION:

- ✓ Apollo
- ✓ Autronica
- ✓ Cerberus
- ✓ Consilium
- ✓ Discovery
- ✓ Eltek
- ✓ Fenwal
- ✓ Hekatron
- ✓ Hochiki
- ✓ Kidde
- ✓ Nippon Hakuyo
- ✓ Nittan
- ✓ Nohmi Bosai
- ✓ Orbis
- ✓ Safetec
- ✓ Salwico
- ✓ Servoteknikk
- ✓ Tyco

### FLAME DETECTION:

- ✓ Apollo
- ✓ Autronica
- ✓ Cerberus
- ✓ Consilium
- ✓ Discovery
- ✓ Hochiki
- ✓ Kidde
- ✓ Microdata
- ✓ Nippon Hakuyo
- ✓ Nittan
- ✓ Orbis
- ✓ Safetec
- ✓ Salwico
- ✓ Servoteknikk
- ✓ Spectrex
- ✓ Tyco

### GAS DETECTION:

- ✓ Autronica
- ✓ Consilium
- ✓ Dräger
- ✓ Honeywell
- ✓ Salwico
- ✓ Spectrex

### TEST EQUIPMENT:

- ✓ Safety Systems
- Technology
- ✓ Sense-Ware
- ✓ Solo



## Service



### REPAIR:

- ✓ Air Compressors
- ✓ Blowers
- ✓ E-motors
- ✓ Fans
- ✓ Hydraulic Cylinders
- ✓ Pumps
- ✓ Valves

### COATING:

- ✓ Casings / Housings
- ✓ Impellers

### REVERSE ENGINEERING (3D SCAN):

- ✓ Impellers
- ✓ Shafts
- ✓ Wear Rings



## Product Overview



Pumps & Spares

Couplings & Inserts

Hoses & Couplings

Mechanical Seals

Bearings

Hydraulics

E-motors & Electrical Components

Valves, Flanges & Gaskets

Fire & Gas Detection

Graco Products

Compressors & Spares

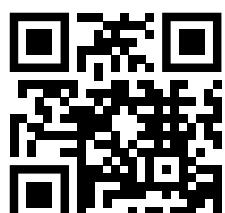
Service

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