

*steel watertight doors*

*aluminium watertight doors*

*B 30 cabin doors*

*DIN clips*

*A 60 rated fire doors*

*aluminium hatches*

*A 60 off shore doors*

*steel hatches*

*A 60 escape hatches*

*windows*

*watertight doors for yachts*

*central closed deck hatches*



# THORMARINE

*Since 1997, the year that THORMARINE was founded, we have grown to a major manufacturer and supplier of products and services for the maritime industry with sales activities through out the world.*

*We offer a wide range of doors, hatches, manholes and windows for the boatbuilding, shipbuilding and off shore industry.*

*We manufacture Lloyd's type approved watertight aluminium and steel doors and hatches, and a wide range of custom build DIN clip doors and hatches. All of them available with a wide range of options.*

*Watertight doors are available to withstand a water pressure of up to 10 mtr/Wc. Other pressures on request.*

*THORMARINE offers a wide range of A30 and A60 rated fire doors and B30 steel internal doors. All our products are build upon customers' request, combined with our experience and advice. These fire rated doors are build according CE type approval.*

*Manhole covers and handholes are available in steel, aluminium and stainless steel and are mostly on stock.*

*We are official distributor of the well known Baier Hatch Company. These are all cast aluminium or cast heat treated galvanized steel fully flush deck, escape or inspection hatches.*



# Tank, deck and escape hatches

THORMARINE ☎ +31 (0)50-5274003 📠 +31 (0)84-7203498 🌐 WWW.THORMARINE.EU

## Individual and central closed hatches



*All hatches are produced according customer sizes combined with our experience*

*Standard with:*

*Sigmaweld MC weld primer*

*Various sizes, various types of frames and coamings*

*Central closed or individual closed by DIN clips*

*Various hinges: flush hinges, DIN hinges, spring loaded hinges etc.*



*Individual closed DIN clips*



*Central closed tank hatch*



*Aluminium hatches*



*Stainless flush DIN clip*



*Hatch wing nuts*



*Hinges*

*All hatches available in aluminium and mild steel*

**THORMARINE**

**Van Moerkerkenlaan 9  
9721 TA Groningen  
The Netherlands**

**[www.thormarine.eu](http://www.thormarine.eu)  
[sales@thormarine.eu](mailto:sales@thormarine.eu)  
+31(0)50-5274003**

# Series 24 watertight doors

THORMARINE ☎ +31 (0)50-5274003 📠 +31 (0)84-7203498 🌐 WWW.THORMARINE.EU

## Watertight aluminium doors



*Doors are all custom build, with various sizes, and supplied including frame, ready to fit*

### **Standard with:**

*40 mm insulation*

*bolt or weld frame, R=150 or mitted corners*

*anodized or powder coated frames and doorleaves*

*4 mm aluminium doorleaf and 2 mm cover*

*dogs, hinges, handles and link bar system all stainless*



### **Options**

*Locks, doorholders, trims, windows etc. Door can be built as double leaf door*

**THORMARINE**  
Van Moerkerkenlaan 9  
9721 TA Groningen  
The Netherlands

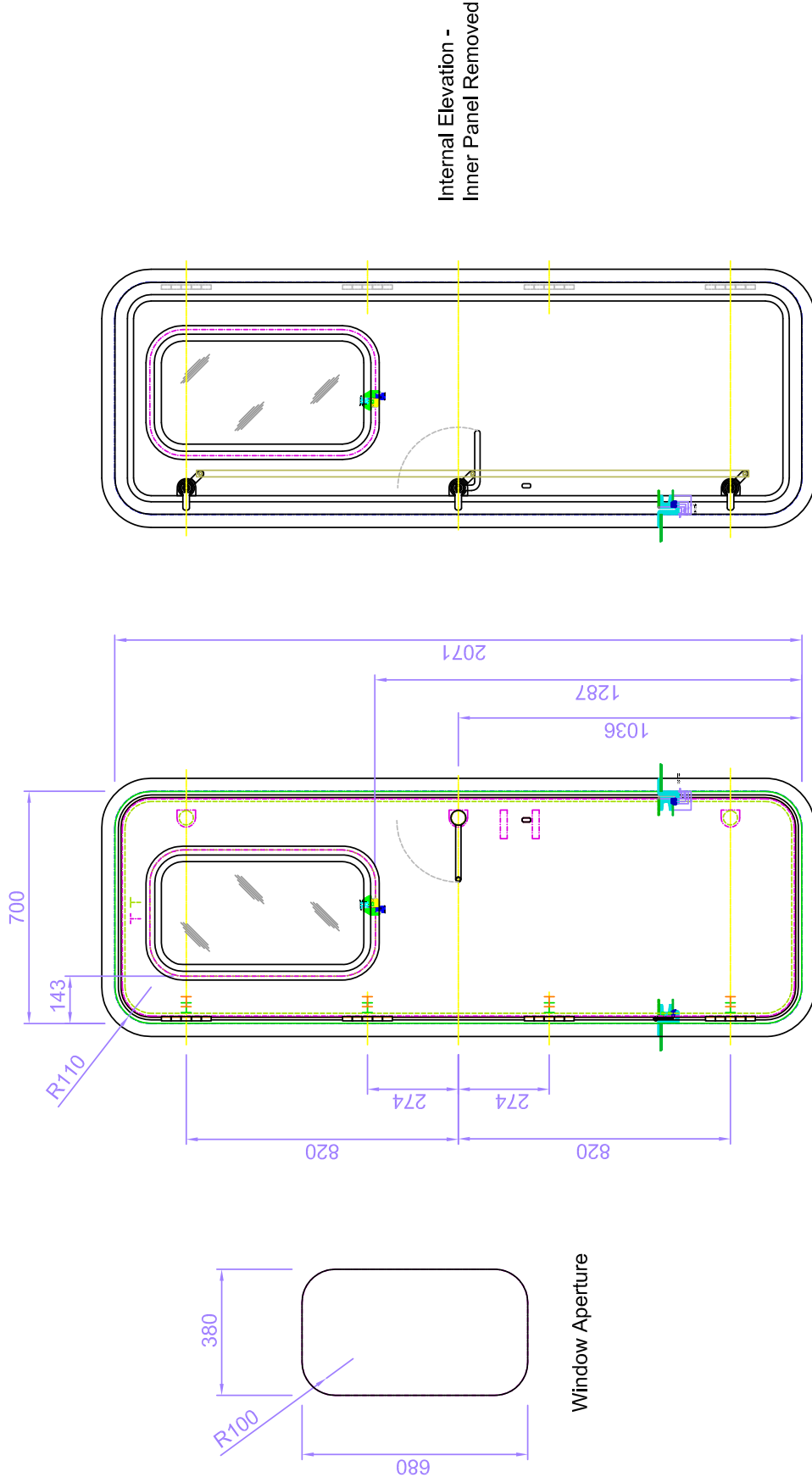
[www.thormarine.eu](http://www.thormarine.eu)  
[sales@thormarine.eu](mailto:sales@thormarine.eu)  
tel: +31(0)50-5274003  
fax: +31(0)84-7203498



THORMARINE BV, Van Moerkerkenlaan 9, 9721TA Groningen, Holland  
 Tel: +31(0)50 5274003 Fax: +31(0)84 7203498  
 E-mail: sales@thormarine.eu Web: www.thormarine.eu

Drawing Type: **Generic**

Drawing Ref: **24 DHA 001 window**



Customer:	N / A	Title:	Series 24 Glazed Door
Model:	N / A	Valued from:	Hinge side
Variant:	N / A	Handling:	LHH
Version:	N / A	Constructed from:	Customer E-Drawings
		Tolerance:	± 2mm
		Scale:	Do not scale
		Frame Details:	S.24 DHA AE IND 066 AE CEG 136
All previous versions of this drawing should be destroyed, contact drawing office if in doubt.			
Issue	Date	Drwn	Chkd
1	30.10.07	G.D.	Original
			Modification
			Details

# Aluminium and steel doors

THORMARINE ☎ +31 (0)50-5274003 📠 +31 (0)84-7203498 🌐 WWW.THORMARINE.EU

## Central closed and DIN clip watertight doors



*All doors and hatches are produced according customer sizes and are Lloyd's approved.*

*Standard with:*

*Sigmaweld MC weld primer*

*Angle bar frame 75 x 50 x 7 mm*

*HIP = Clear opening + 75mm*

*Radius in superstructure 137,5*

*Adjustable M-20 hinges with grease nipple*

*6 or 8 mm steel door leaf*

*Stainless steel handles and quick pin locking*



*We produce these doors to withstand a waterpressure of 7,5 meters of waterhead*

### **Options:**

*Aluminium frame and doorleaf*

*Rockwool insulation, 40 mm or 100 mm with bolted cover*

*Sigma paint*

*Square angled corners, locks, windows and portholes, handwheel operation*



**central closed doors  
are type approved**

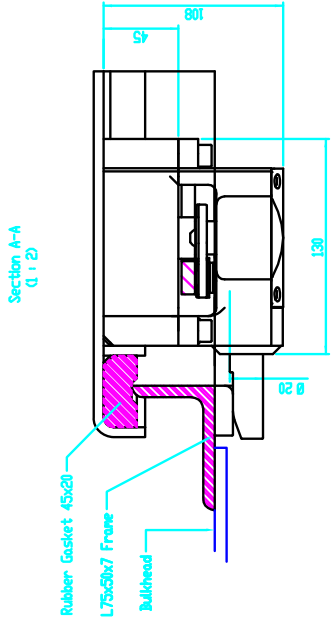
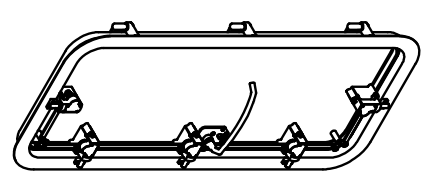
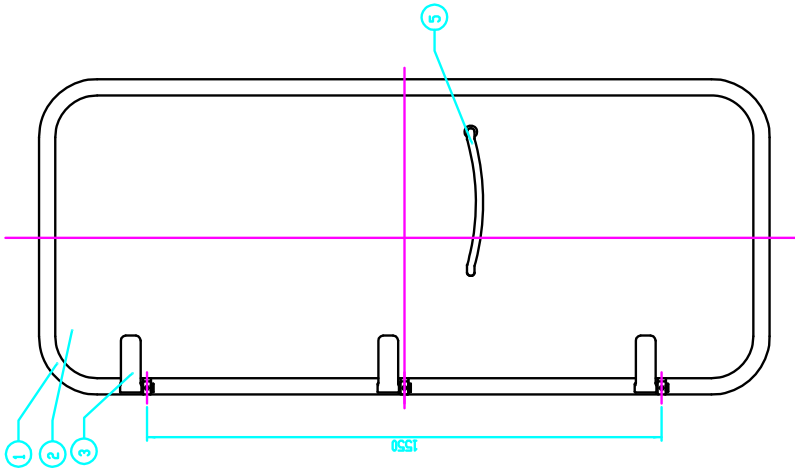
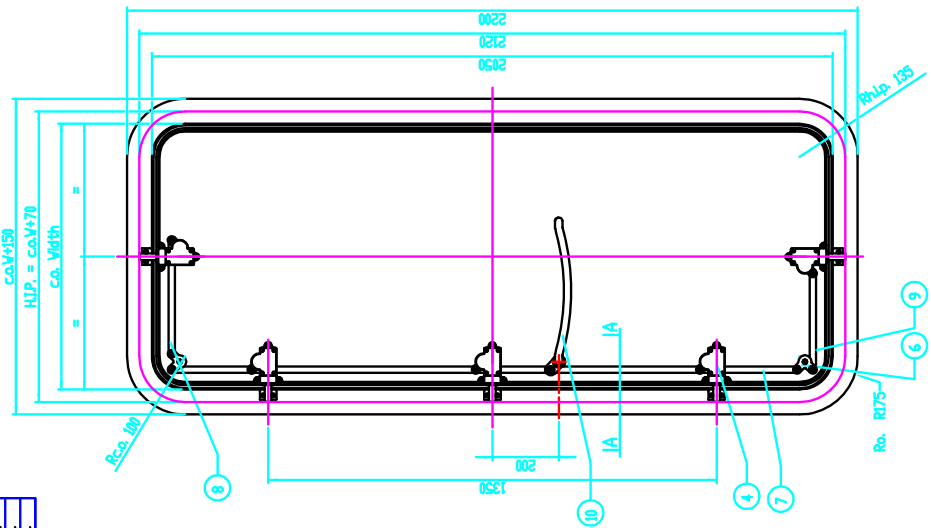
**THORMARINE**

**Van Moerkerkenlaan 9  
9721 TA Groningen  
The Netherlands**

**[www.thormarine.eu](http://www.thormarine.eu)  
[sales@thormarine.eu](mailto:sales@thormarine.eu)  
+31(0)50-5274003**

Part no.	Description	Material	Specifications	Part Number	Remarks	Part no.
1	Counters Assembly	-	-	TM05-0-00-00	-	-
2	Door Assembly	-	-	TM05-0-00-00	-	-
3	Assembly Ring III	-	-	TM05-0-00-00	LH - 25628	-
4	Top & Bottom Bar	-	-	TM05-0-00-00	-	-
5	Top & Bottom Bar	-	-	TM05-0-00-00	-	-
6	Corner Piece	-	-	TM05-0-00-00	-	-
7	Top & Bottom Bar	-	-	TM05-0-00-00	-	-
8	Top & Bottom Bar	-	-	TM05-0-00-00	-	-
9	Top & Bottom Bar	-	-	TM05-0-00-00	-	-
10	Handle Lock	-	-	TM05-0-00-00	-	-

Door no.	Clear Opening	Hole In Plate	Swing
07	800 x 2050	870 x 2120	Right
08	800 x 2050	870 x 2120	Left
56	800 x 2050	870 x 2120	Right
57	1000 x 2050	1070 x 2120	Right
58	800 x 2050	870 x 2120	Right



		Nick: A2 Number: NEN-ISO-2768-1m Date: 17.09.08 Scale: 1:10 Part No.: TM05-0-00-00
BV Thormarine Vrijheidskade 9 9721 TA Groningen WWW.THORMARINE.EU		5 Clips Door CP left hinged

# A-0-A-60 & B-30 fire doors

THORMARINE ☎ +31 (0)50-5274003 📠 +31 (0)84-7203498 🌐 WWW.THORMARINE.EU



*Certified by: GL-CE number 42842-02 Lux, ABS etc.  
Incl. Lock, handles and plates DIN 18250  
Galvanized and primed steel door leaves and frame  
Z-profile frame around the door, various sills*



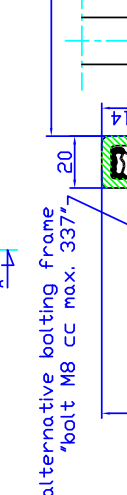
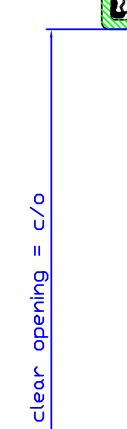
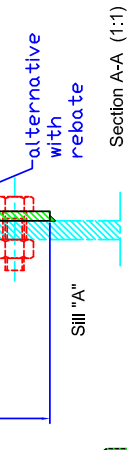
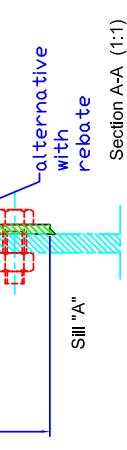
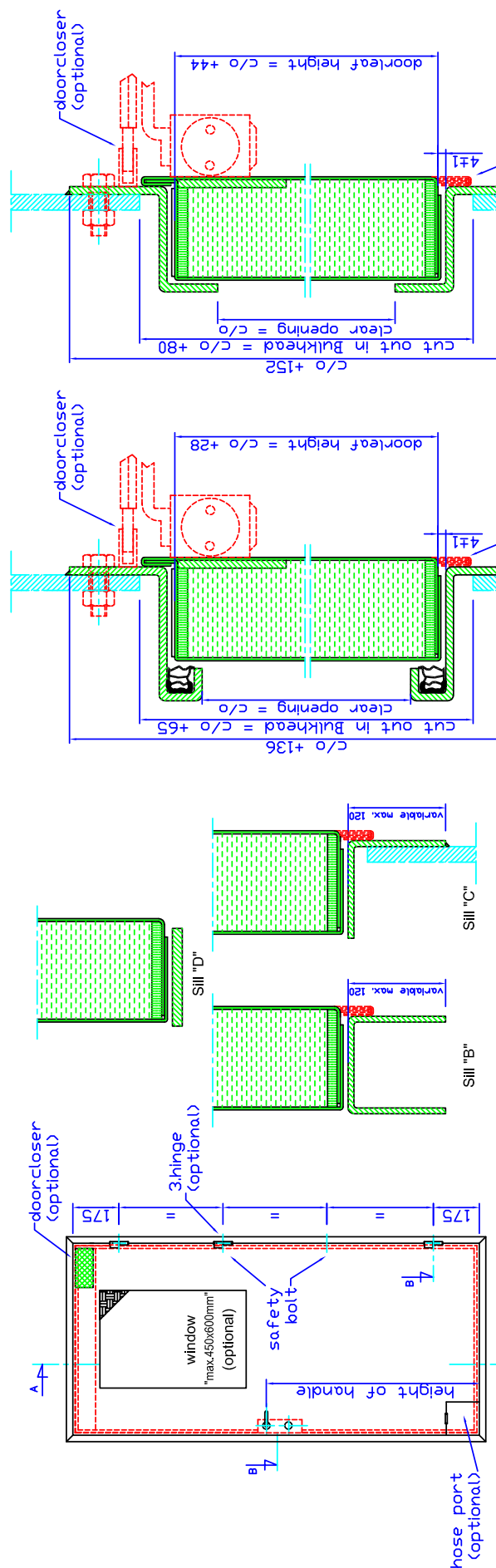
## **Options :**

*Stainless materials for doorleaf, frame, handles and hinges  
Dorma doorcloser, concealed hinges  
Various locking systems, ventilation grills, paint systems and foils  
Door can be built as sliding door or double door  
Extra seal for weathertight, in or excl. extra cleats / dogs.*

**THORMARINE**  
Van Moerkerkenlaan 9  
9721 TA Groningen  
The Netherlands

[www.thormarine.eu](http://www.thormarine.eu)  
[sales@thormarine.eu](mailto:sales@thormarine.eu)  
tel: +31(0)50-5274003  
fax: +31(0)84-7203498



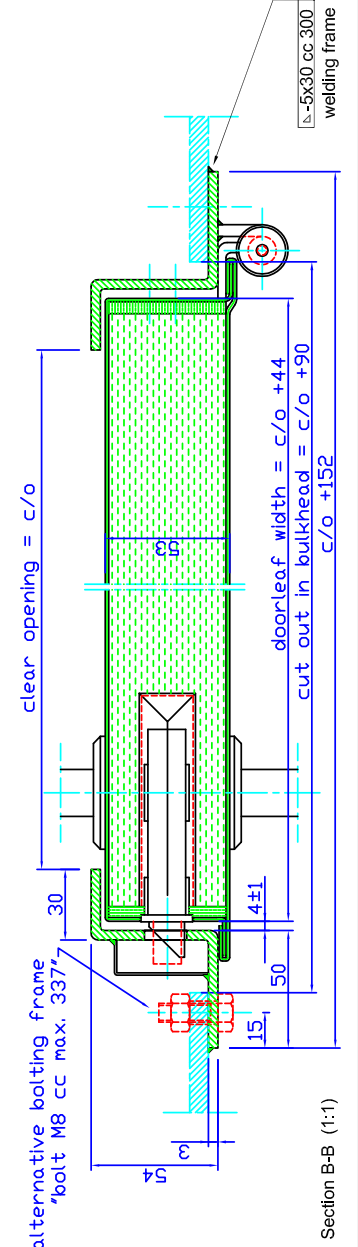
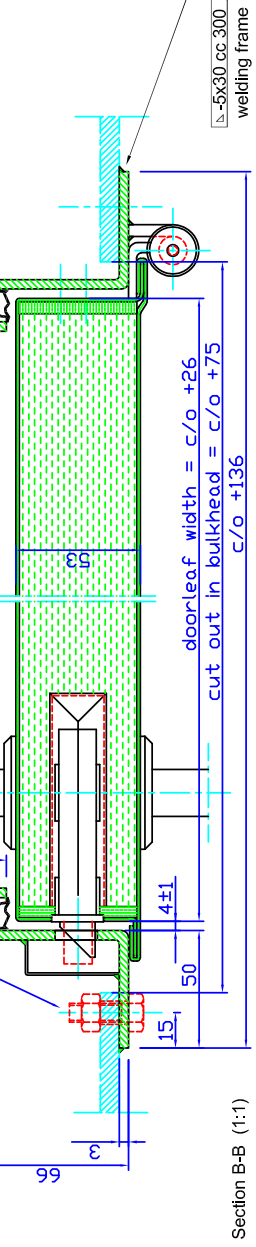


Options	
doorcloser	clamping frame
window A30	panic bar
window A60	lever dogs
hose port	recessed handles
frame stainless steel	.
doorleaf stainless steel	.
doorleaf pvc-coated steel	.
sealing	.
concealed doorcloser	.

drawn DIN right opening (DIN left mirror inverted)

REVISION	DATE	DESCRIPTION	SOH	DRAWING SIZE
customer drawing			Krebs	

THORMARINE BV  
 Van Moerkerkenlaan 9  
 9721 TA Groningen  
 WWW.THORMARINE.EU  
 A-60 HINGED SINGLE  
 DRAWING NO. 17.08.06  
 GENERAL DRAWING  
 A60 LMD-H1.DWG



# Series A-60 offshore doors

THORMARINE ☎ +31 (0)50-5274003 📠 +31 (0)84-7203498 🌐 WWW.THORMARINE.EU

## Off shore en escape doors



door with recessed stainless handle

### **Standard with:**

*3 mm Z profile frame for bolting, provided with seal for spray and gastightness  
Both sides 2mm galvanized doorleaf with 50mm insulation  
Door and frame painted with 1 layer primer, RAL colour available at additional cost  
3 stainless steel hinges  
complete with lock and stainless steel handles and sheelds  
door with stiffeners inside*



### **Options**

*Lightmetal panic bar, stainless steel optional  
Dorma TS 83 doorcloser  
Stainless recessed handle*

**THORMARINE**  
Van Moerkerkenlaan 9  
9721 TA Groningen  
The Netherlands

[www.thormarine.eu](http://www.thormarine.eu)  
[sales@thormarine.eu](mailto:sales@thormarine.eu)  
fax: 31(0)84-7203498  
tel: 31(0)50-5274003

# Escape and inspection hatches

THORMARINE ☎ +31 (0)50-5274003 📠 +31 (0)84-7203498 🌐 WWW.THORMARINE.EU

## Flush deck hatches operable by key or T handle



All hatches are standard round, oval or square



### Standard with:

galvanized casted steel or aluminium cover, deck ring made of Stainless, aluminium or steel

lift out or hinged, hinged available with coaming

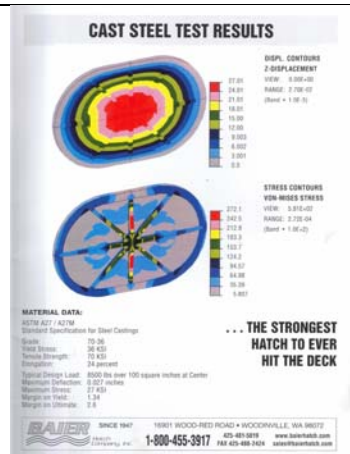
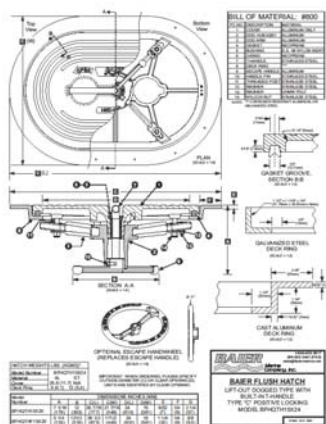
quick acting hatch with 4 dogs, or strongback

round lift out: clear opening: 356, 406, 457, 508 and 610 mm

round hinged: clear opening: 559 mm

oval lift out or hinged: clear opening: 381 x 610 or 343 x 521 mm

key: galvanized steel, build in T handle stainless or bronze



### Options

Handwheel below

All hatches are ABS, US Coast Guard or DNV certified

# Handhole & Manhole covers

THORMARINE ☎ +31 (0)50-5274003 📠 +31 (0)84-7203498 🌐 WWW.THORMARINE.EU

## Manhole covers and handholes



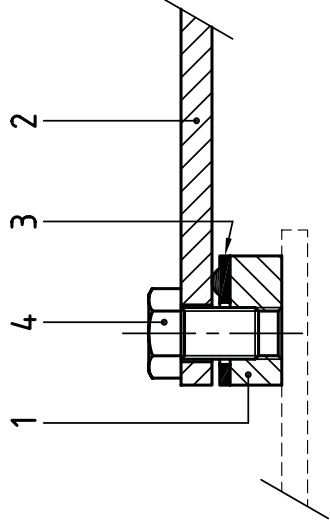
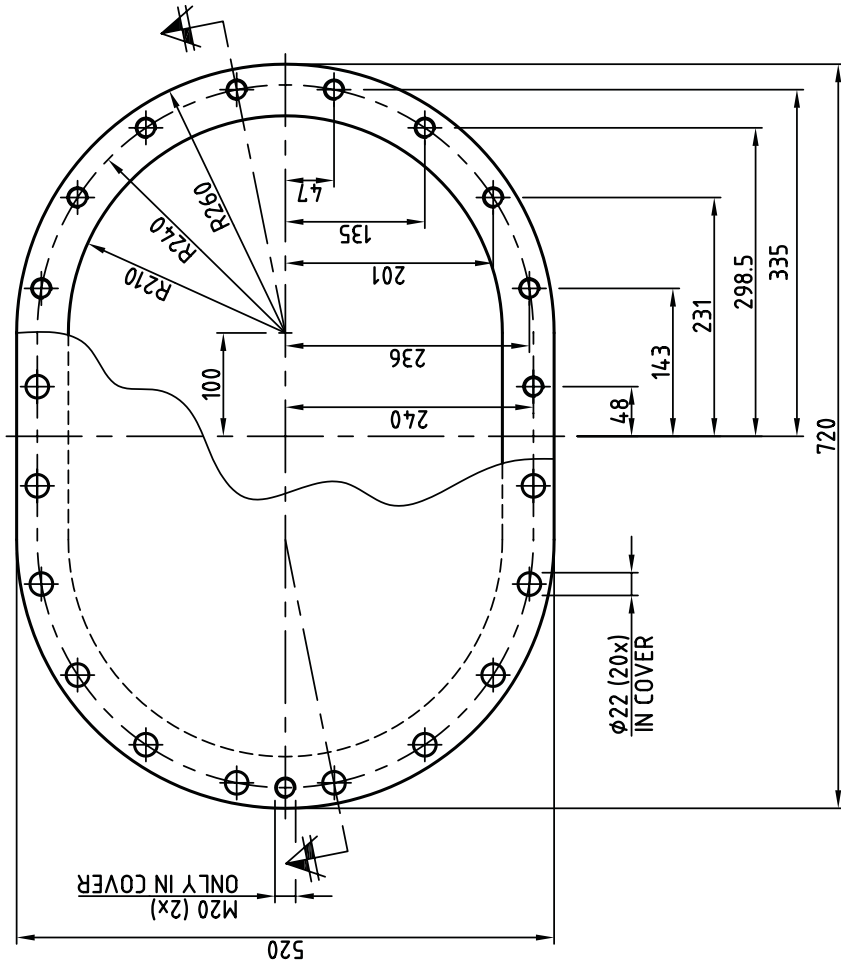
*All our manhole and handhole covers are made of steel, aluminium or Stainless steel (on request)*

*We supply round or oval covers, complete with deck ring. Deck rings are flush or non flush  
Covers are supplied with seal and bolts and nuts.*

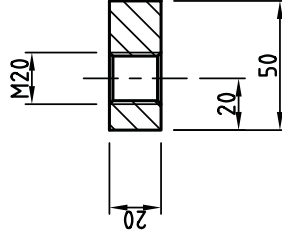
*Ring and cover are shotblasted SA 2.5 and primed with 1 layer Sigmaweld MC  
Most covers can be supplied from stock.*



TOP VIEW

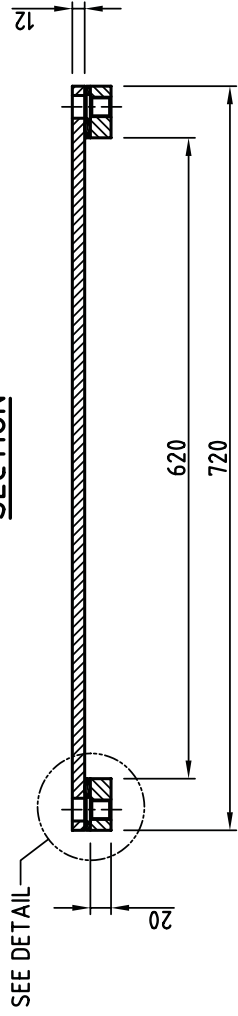


DETAIL



PART DATA	
Part no.	51.ST.511.03
Number per component	1
Material	STEEL GRADE A Grade A - LRS
Belonging to drawing	-
Remarks	Sharp edges to be removed

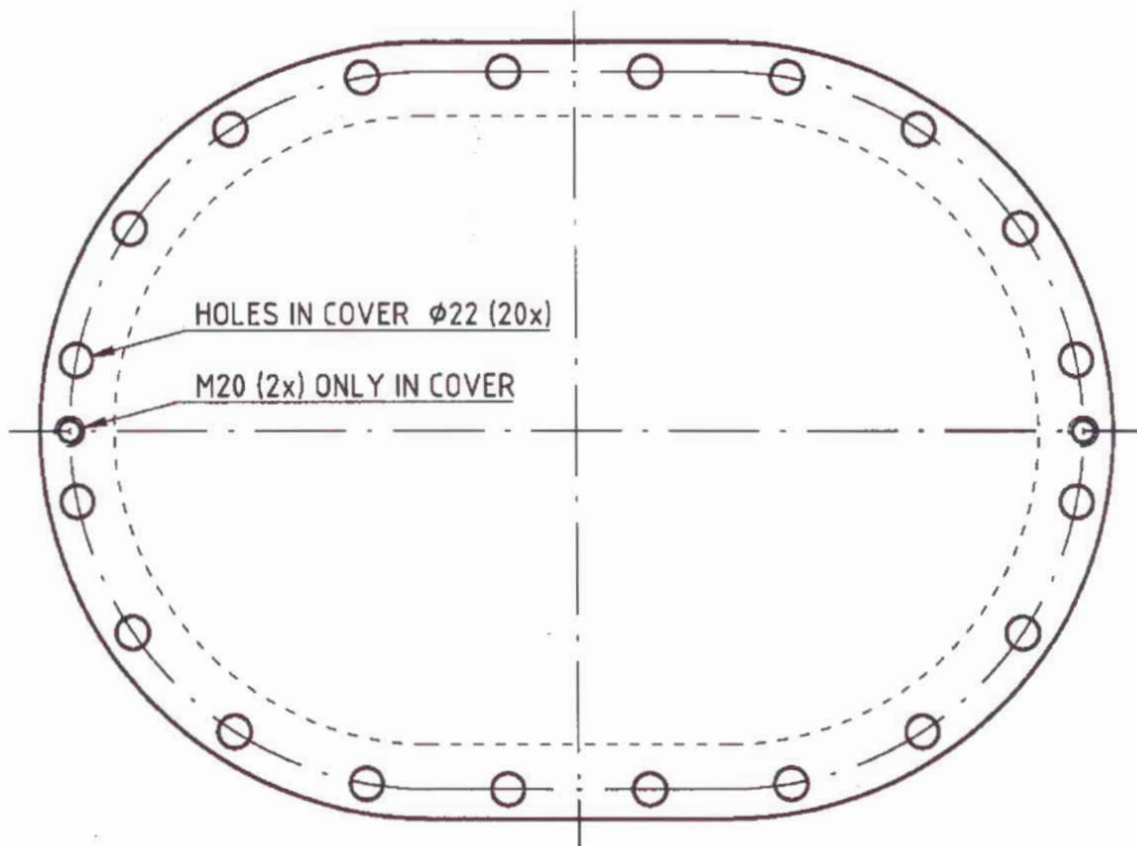
SECTION



4	20	Bolt M20x30	Steel 8.8	DIN 933	Hot dipped galv.
3	1	Seal	Nitril	DIN 834.03-A	65±5° Shore A
2	1	Manhole cover	Steel Grade A		Part no. 51.ST.511.53
1	1	Manhole ring	Steel Grade A		Part no. 51.ST.511.63
Pos.	Qty.	Description	Material	Type/Drw. No.	Remarks
Format	STEEL MANHOLE C/O 600x400				
A3	TYPE A - OVAL				
Rev.	511.03 B				
Drawn	BCS				
Date	12-02-2005				
Scale	1:5 / 1:2				

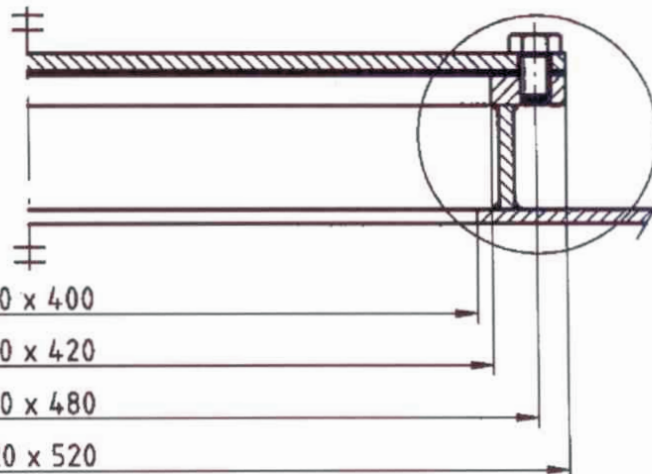
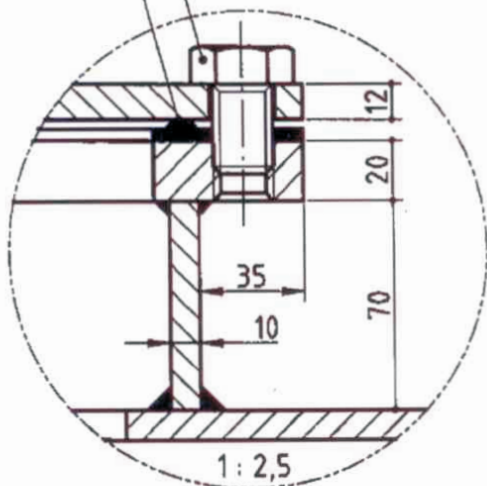
**THOR**MARINE





OIL AND SEAWATER  
RESISTANT RUBBER 3mm  
DIN 83403

BOLT M20 x 30 (20x)  
DIN 931



This drawing and design is protected by copyright and the information is confidential. It is also protected and registered under Dutch laws through the Dutch government department for Taxes. The drawing and/or models may not be copied, reproduced, duplicated or disclosed to others, in whole or in part.

Subject: **MANHOLE STEEL WITH COAMING**

Drawingnumber:

Component: **TYPE B-OVAL**

**511.05**

Date : 27-11-'98

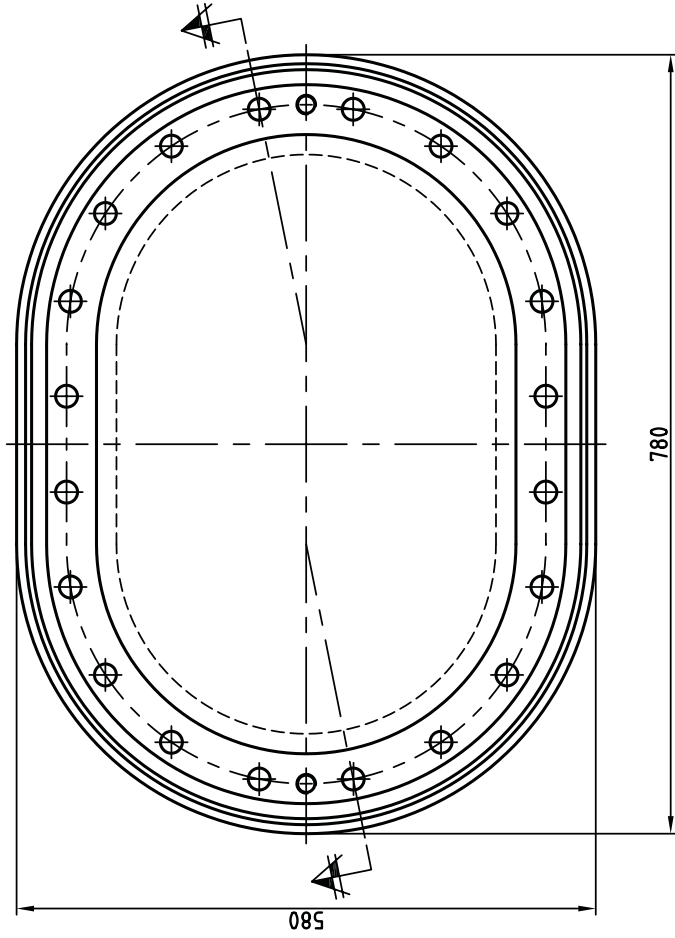
**THORMARINE**

.eu

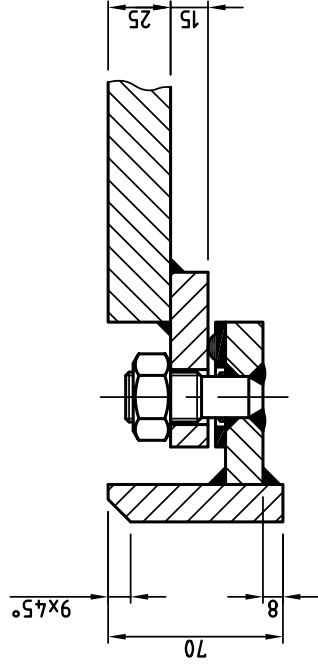
Drawn: BCS

Scale : 1:5

TOP VIEW

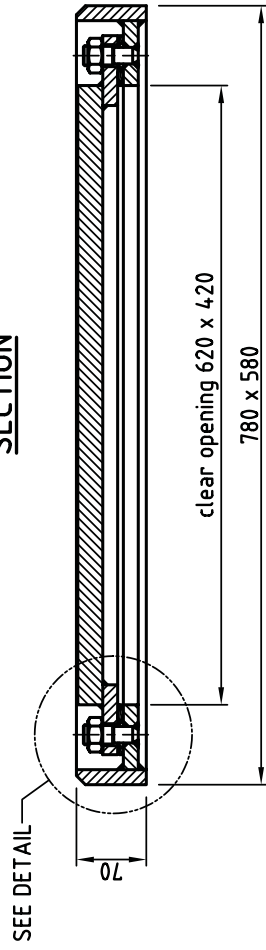


DETAIL



PART DATA	
Part no.	51.ST.511.04
Number per component	1
Material	STEEL GRADE A Grade A - LRS
Belonging to drawing	-
Remarks	Sharp edges to be removed

SECTION



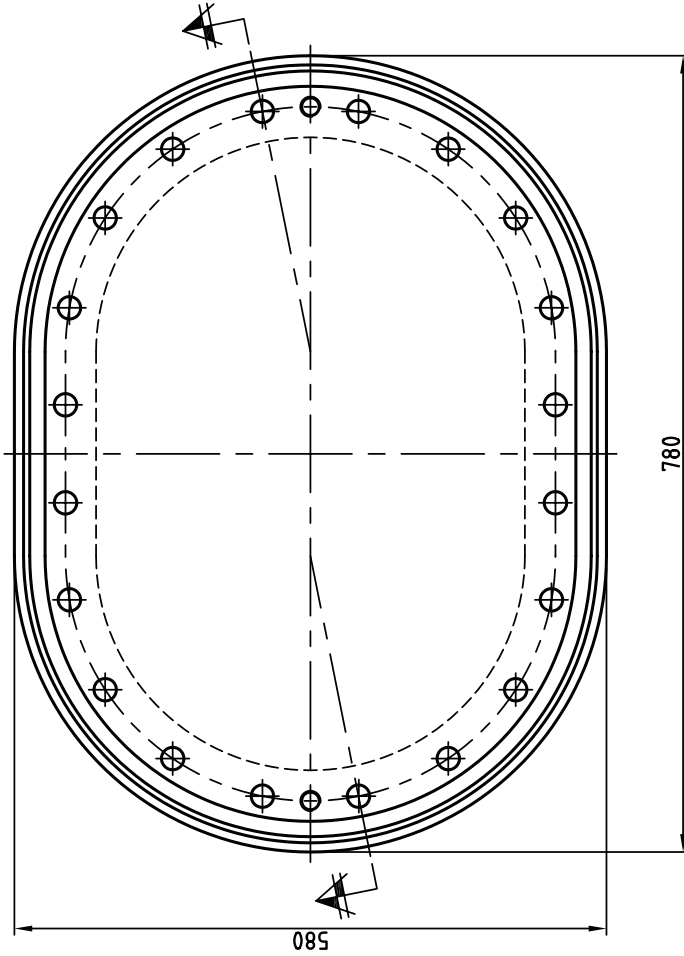
5	1	Seal	Nitril	DIN 83403-A	65±5° Shore A
4	20	Nut	Stainless Steel	DIN934 A4-80	
3	20	Stud bolt	Stainless Steel	DIN933 A4-70	Made out of M20x60
2	1	Manhole cover	Steel Grade A	511.54	Part no. 51.ST.511.54
1	1	Manhole ring	Steel Grade A	511.64	Part no. 51.ST.511.64
Pos.	Qty.	Description	Material	Type/Drw. No.	Remarks
Format		Subject: STEEL MANHOLE C/O 620x420			
A3		Component: TYPE C FLUSH - OVAL			
		Drawingnumber: 511.04			
		Rev. C			

Drawn : BCS	
Date : 12-02-2005	
Scale : 1:5 / 1:2	

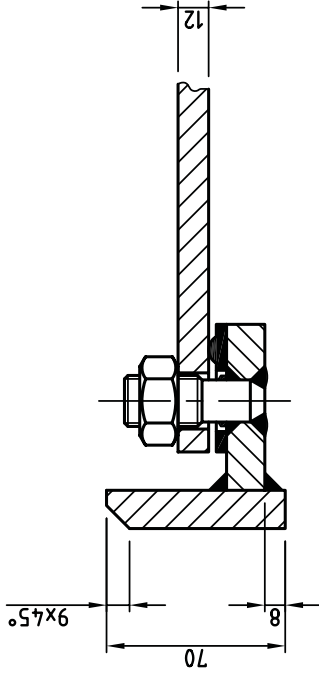
**THORMARINE**



TOP VIEW

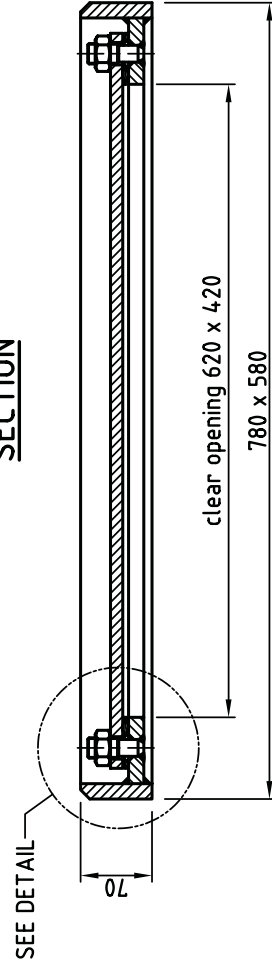


DETAIL



PART DATA	
Part no.	51.ST.511.04
Number per component	1
Material	STEEL GRADE A Grade A - LRS
Belonging to drawing	-
Remarks	Sharp edges to be removed

SECTION



NOTE: FOR DIMENSIONS COVER AND HOLE PATTERN SEE DRAWING 511.03

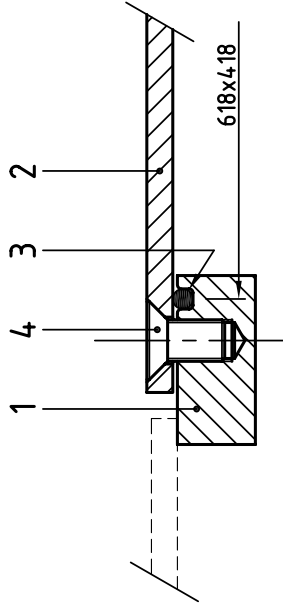
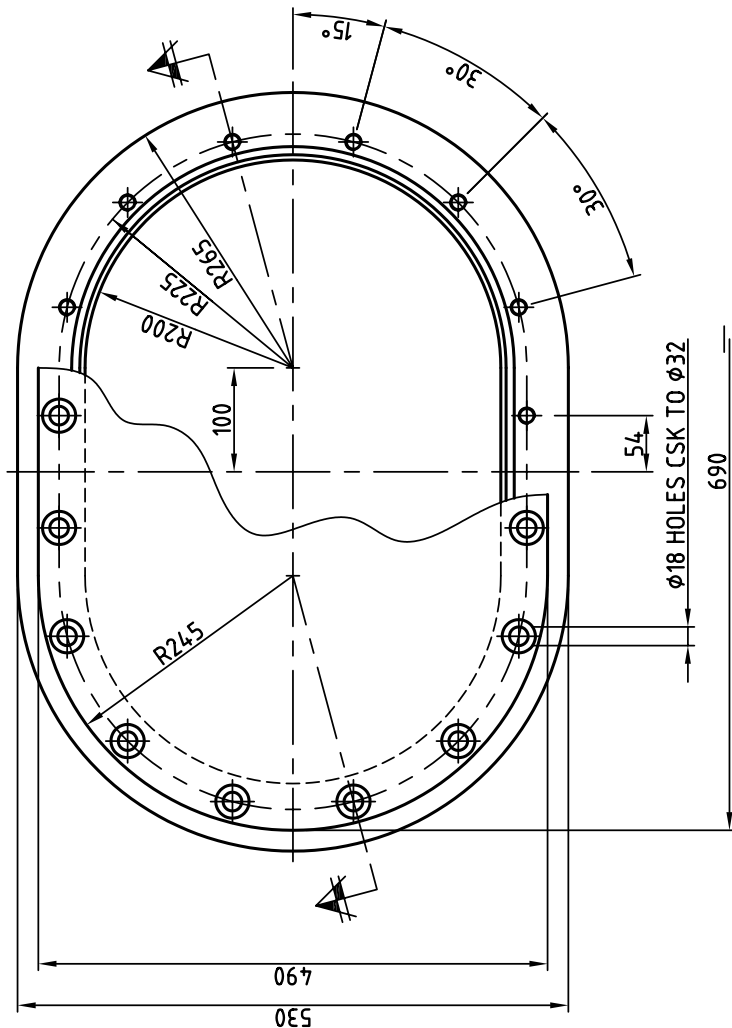
5	1	Seal	Nitril	DIN 83403-A	65±5° Shore A
4	20	Nut	Stainless Steel	DIN934 A4-80	
3	20	Stud bolt	Stainless Steel	DIN933 A4-70	Made out of M20x60
2	1	Manhole cover	Steel Grade A	511.03	Part no. 51.ST.511.53
1	1	Manhole ring	Steel Grade A	511.64	Part no. 51.ST.511.64
Pos.	Qty.	Description	Material	Type/Draw. No.	Remarks
Format		Subject: STEEL MANHOLE C/O 620x420			
A3		Component: TYPE D FLUSH - OVAL			
Drawingnumber:		511.06			
Rev.		C			
Drawn : BCS					
Date : 12-02-2005					
Scale : 1:5 / 1:2					

**THORMARINE**

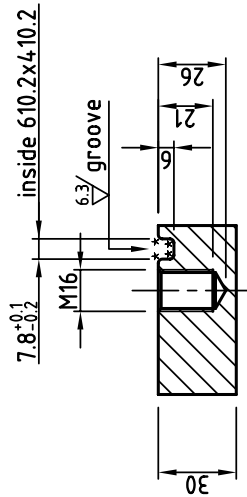


∠ (6.3/)

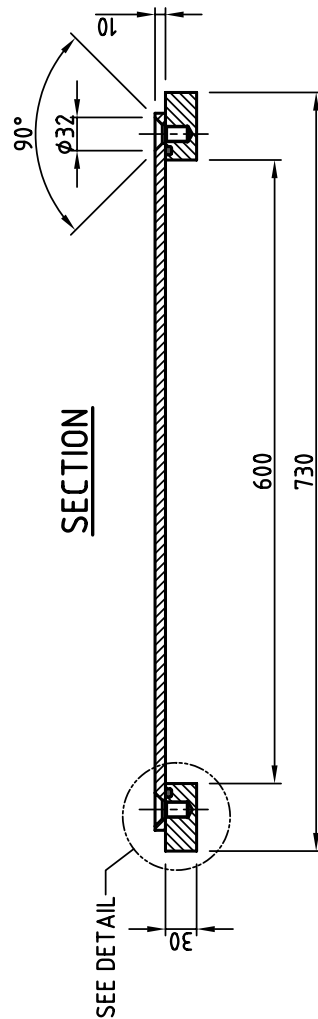
TOP VIEW



DETAIL



PART DATA	
Part no.	51.ST.511.11
Number per component	1
Material	STEEL GRADE A Grade A - LRS
Belonging to drawing	-
Remarks	Sharp edges to be removed



SECTION

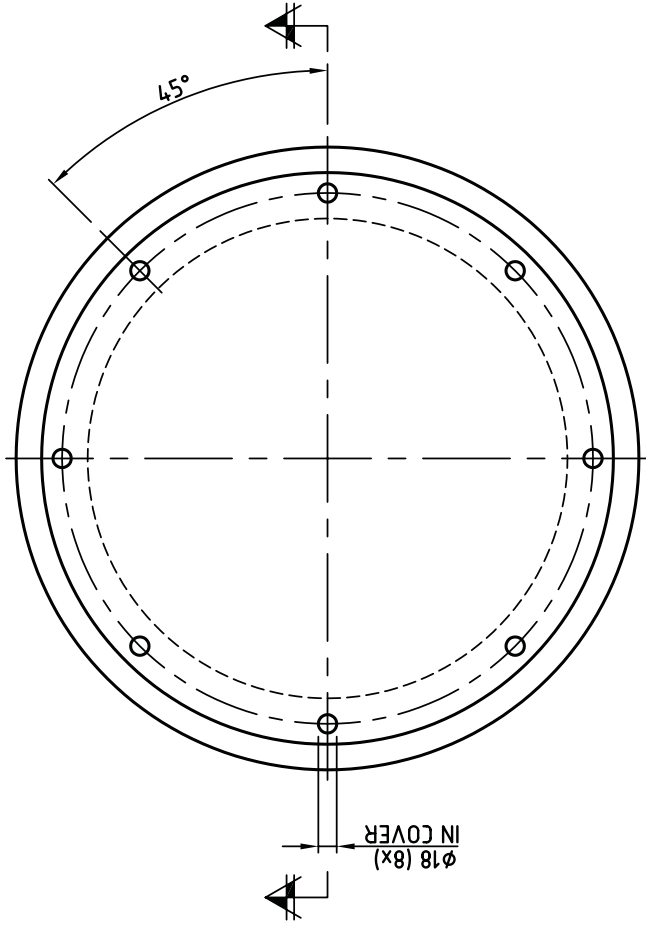
4	16	Bolt M16x30	Steel 8.8	DIN 7991	Hot dipped galv.
3	1	Seal Ø8 L=1713	Nitril		NBR 70° Shore A
2	1	Manhole cover	Steel Grade A		
1	1	Manhole ring	Steel Grade A		
Pos. Qty.	Description	Material	Type/Drw. No.	Remarks	
Subject: STEEL MANHOLE C/O 600x400					
Component: TYPE G - OVAL					
Format	Drawingnumber: 511.11 Rev. A				
A3					

**THORMARINE**

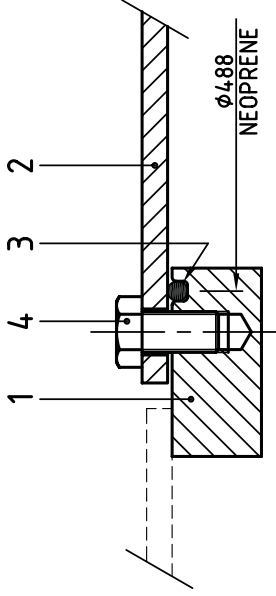
Drawn : BCS  
Date : 29-06-2009  
Scale : 1:5 / 1:2



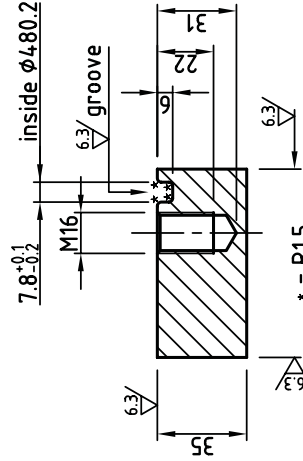
**TOP VIEW**



$\sqrt{6.3}$

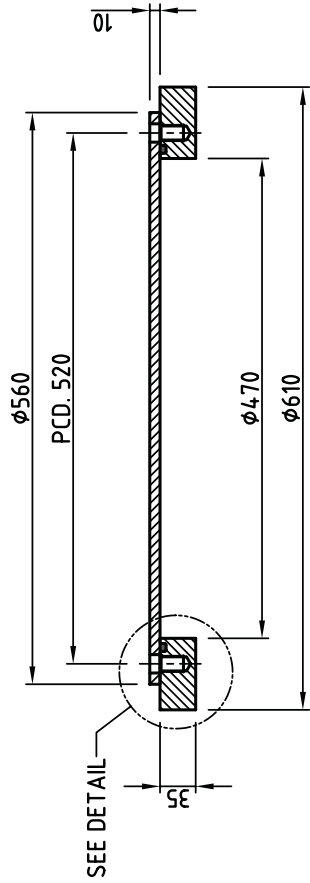


**DETAIL**



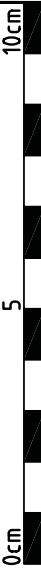
PART DATA	
Part no.	51.ST.511.01
Number per component	1
Material	STEEL GRADE A Grade A - LRS
Belonging to drawing	-
Remarks	Sharp edges to be removed

**SECTION**

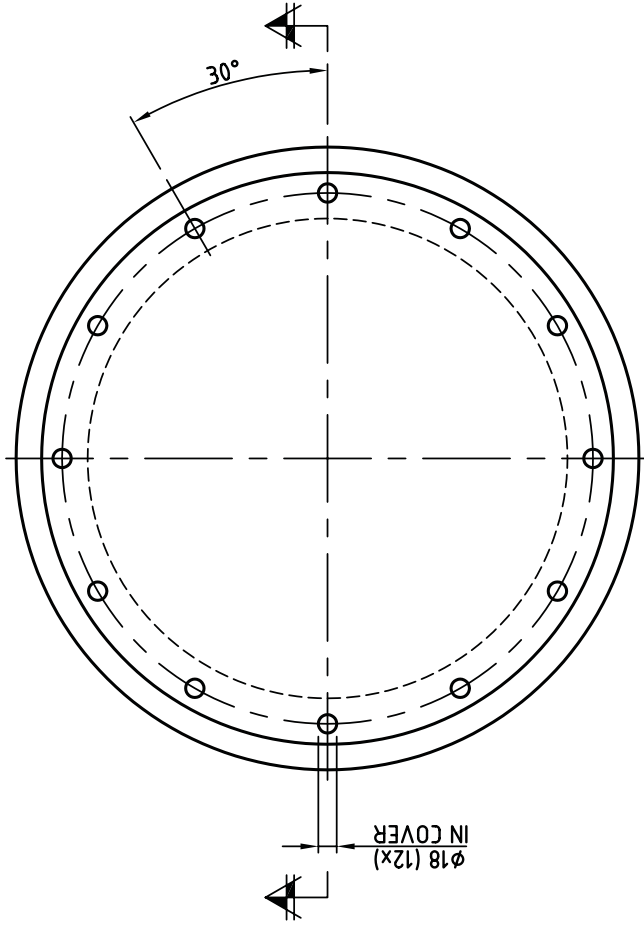


4	8	Bolt M16x30	Steel 8.8	DIN 933	Hot dipped galv.
3	1	Seal $\phi 8$	Nitril		NBR 70° Shore A
2	1	Manhole cover	Steel Grade A		
1	1	Manhole ring	Steel Grade A		
Pos.	Qty.	Description	Material	Type/Drw. No.	Remarks
Format		Subject: STEEL MANHOLE C/O $\phi 470$			
A3		Component: TYPE A FLUSH - 8 BOLTS			
Rev.		Drawingnumber:		511.01 B	
Drawn : BCS		Date : 12-02-2005		Scale : 1:5 / 1:2	

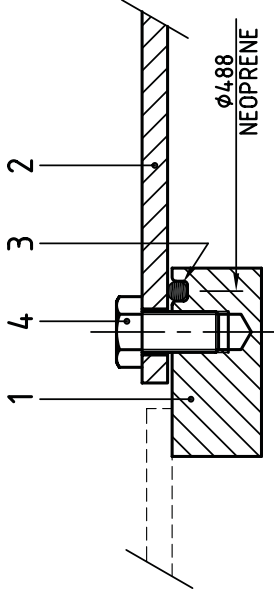
**THORMARINE**



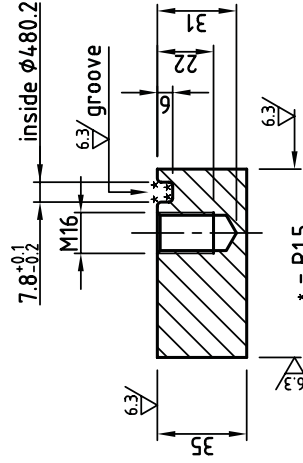
**TOP VIEW**



6.3/ (V)

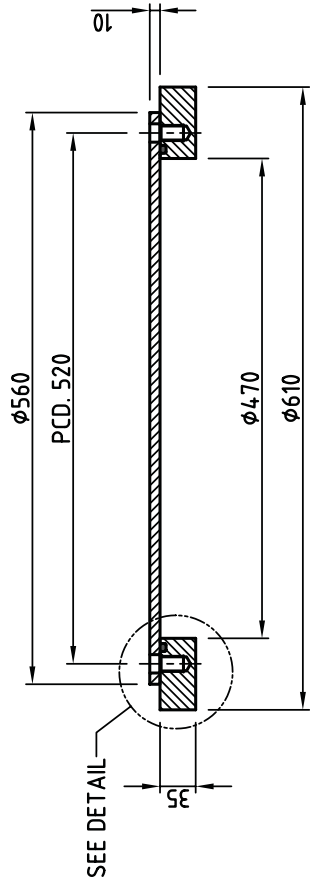


**DETAIL**



PART DATA	
Part no.	51.ST.511.02
Number per component	1
Material	STEEL GRADE A Grade A - LRS
Belonging to drawing	-
Remarks	Sharp edges to be removed

**SECTION**



4	12	Bolt M16x30	Steel 8.8	DIN 933	Hot dipped galv.
3	1	Seal $\phi 8$	Nitril		NBR 70° Shore A
2	1	Manhole cover	Steel Grade A		
1	1	Manhole ring	Steel Grade A		
Pos.	Qty.	Description	Material	Type/Draw. No.	Remarks
Format		Subject: STEEL MANHOLE C/O $\phi 470$			
A3		Component: TYPE A FLUSH - 12 BOLTS			
Rev.		Drawingnumber:		511.02 C	
Drawn : BCS		Date : 12-02-2005		Scale : 1:5 / 1:2	

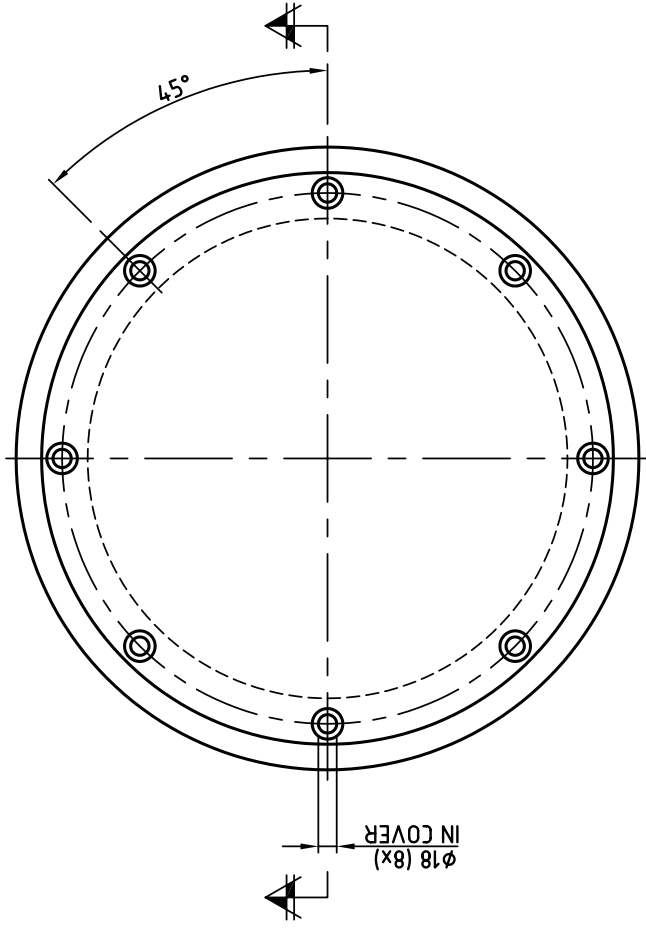
**THORMARINE**

10cm

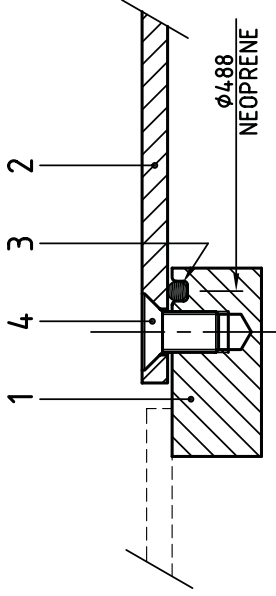
5

0cm

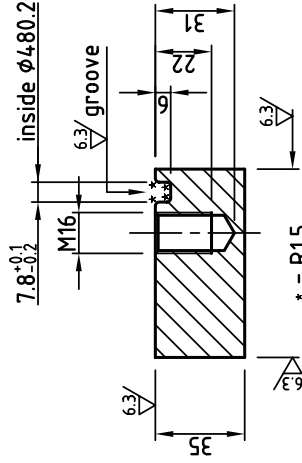
**TOP VIEW**



6.3/ (V)

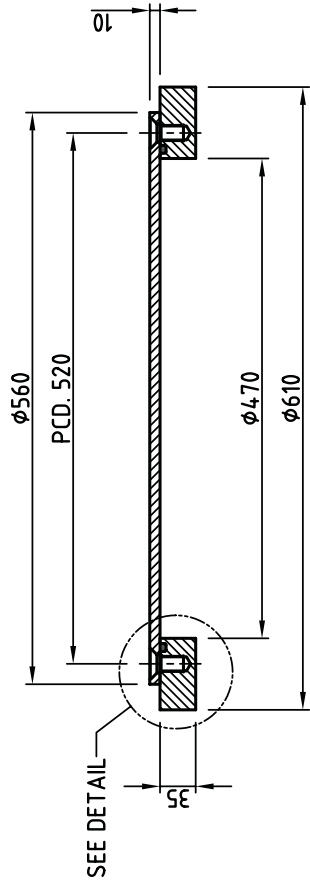


**DETAIL**



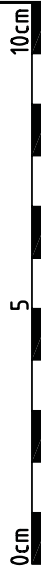
PART DATA	
Part no.	51.ST.512.01
Number per component	1
Material	STEEL GRADE A Grade A - LRS
Belonging to drawing	-
Remarks	Sharp edges to be removed

**SECTION**

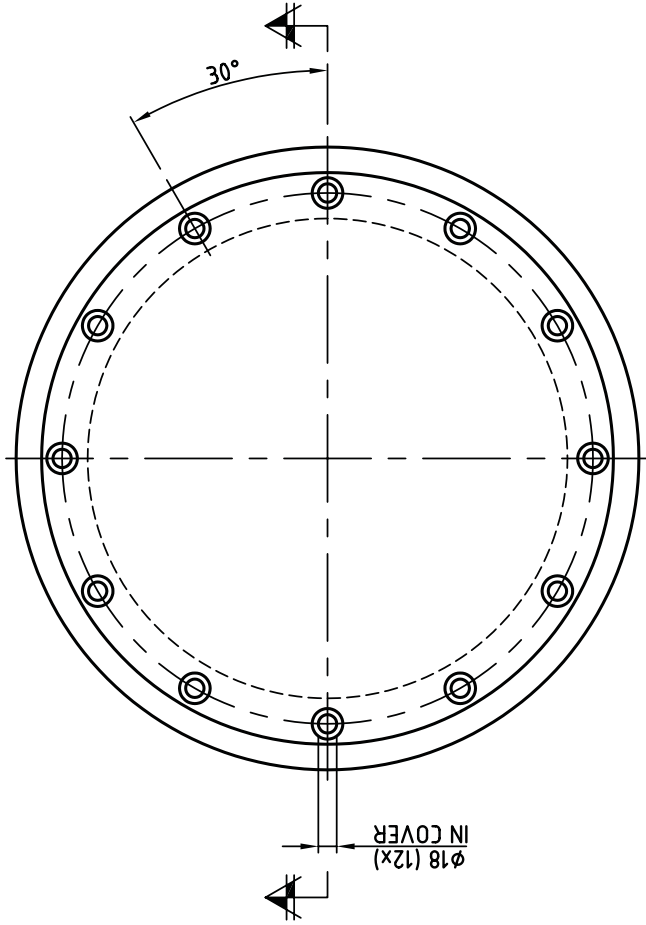


4	8	Bolt M16x30	Steel 8.8	DIN 7991	Hot dipped galv.
3	1	Seal Ø8	Nitril		NBR 70° Shore A
2	1	Manhole cover	Steel Grade A		
1	1	Manhole ring	Steel Grade A		
Pos.	Qty.	Description	Material	Type/Drw. No.	Remarks
Format		Subject: STEEL MANHOLE C/O Ø470			Drawingnumber: 512.01
A3		Component: TYPE B FLUSH - 8 BOLTS			Rev. C

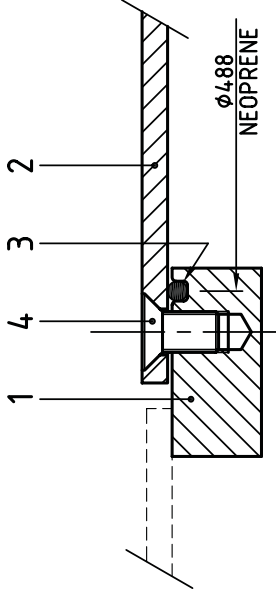
**THORMARINE**



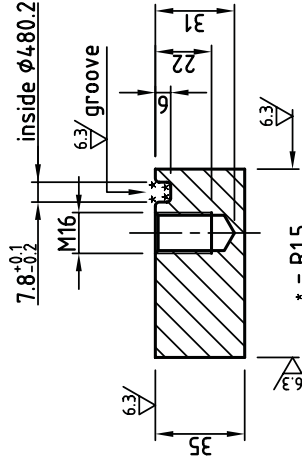
**TOP VIEW**



6.3/ (V)

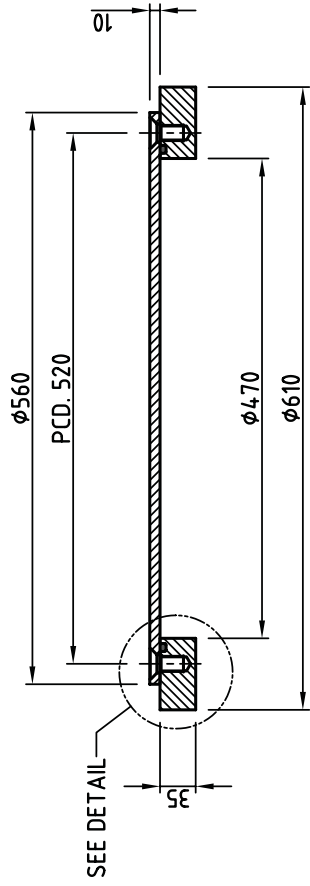


**DETAIL**



PART DATA	
Part no.	51.ST.512.02
Number per component	1
Material	STEEL GRADE A Grade A - LRS
Belonging to drawing	-
Remarks	Sharp edges to be removed

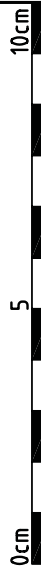
**SECTION**



4	12	Bolt M16x30	Steel 8.8	DIN 7991	Hot dipped galv.
3	1	Seal Ø8	Nitril		NBR 70° Shore A
2	1	Manhole cover	Steel Grade A		
1	1	Manhole ring	Steel Grade A		
Pos.	Qty.	Description	Material	Type/Draw. No.	Remarks
Format		Subject: STEEL MANHOLE C/O Ø470			
A3		Component: TYPE B FLUSH - 12 BOLTS			
Drawing number:					512.02
Rev.					C

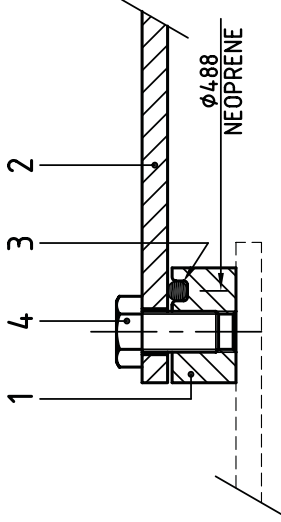
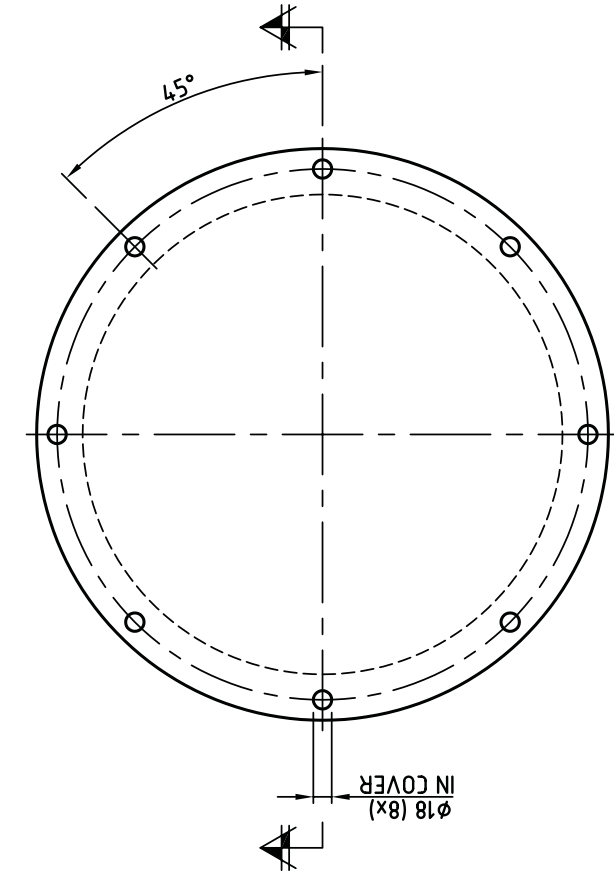
**THORMARINE**

Drawn : BCS  
Date : 12-02-2005  
Scale : 1:5 / 1:2

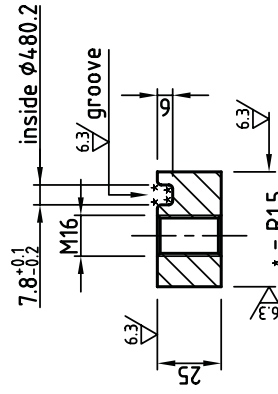


**TOP VIEW**

6.3/ (V)

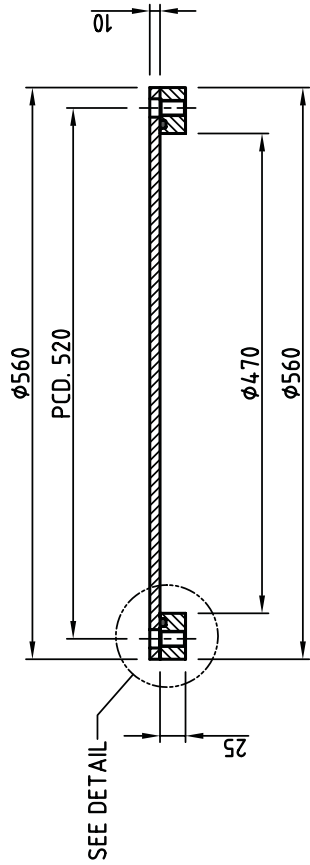


**DETAIL**



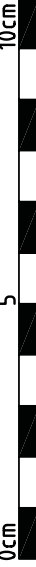
PART DATA	
Part no.	51.ST.513.01
Number per component	1
Material	STEEL GRADE A Grade A - LRS
Belonging to drawing	-
Remarks	Sharp edges to be removed

**SECTION**



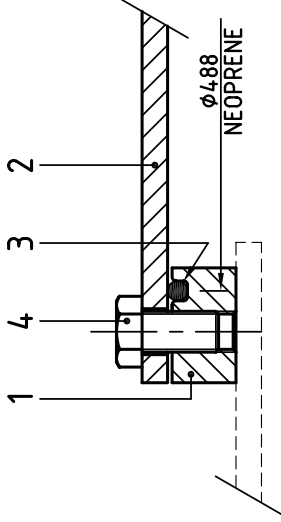
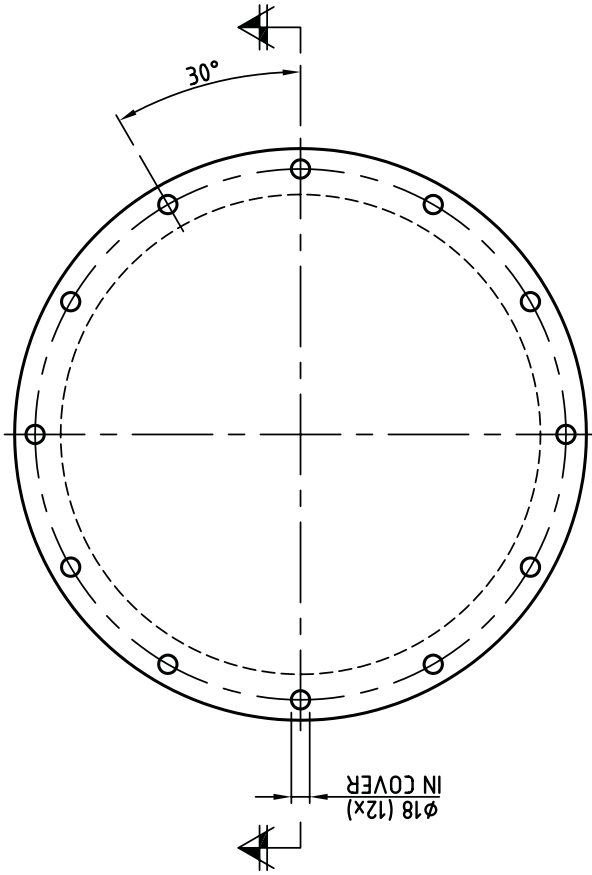
4	8	Bolt M16x30	Steel 8.8	DIN 933	Hot dipped galv.
3	1	Seal φ8	Nitril		NBR 70° Shore A
2	1	Manhole cover	Steel Grade A		
1	1	Manhole ring	Steel Grade A		
Pos.	Qty.	Description	Material	Type/Drw. No.	Remarks
Format		Subject: STEEL MANHOLE C/O φ450			
A3		Component: TYPE C - 8 BOLTS			
Rev.		Drawingnumber: 513.01 C			
Drawn : BCS		Date : 12-02-2005			
Scale : 1:5 / 1:2					

**THORMARINE**

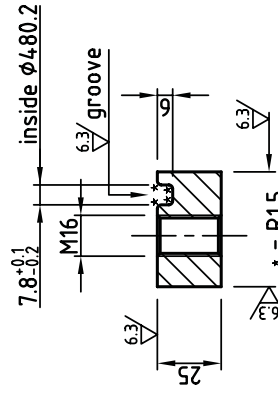


**TOP VIEW**

6.3/ (V)

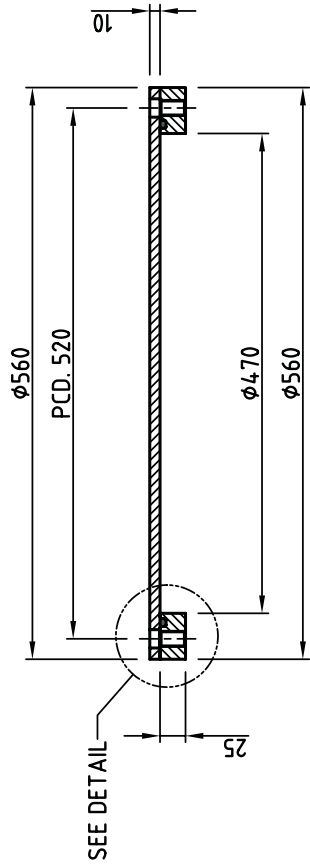


**DETAIL**



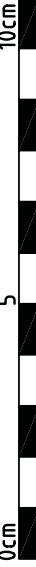
PART DATA	
Part no.	51.ST.513.02
Number per component	1
Material	STEEL GRADE A Grade A - LRS
Belonging to drawing	-
Remarks	Sharp edges to be removed

**SECTION**



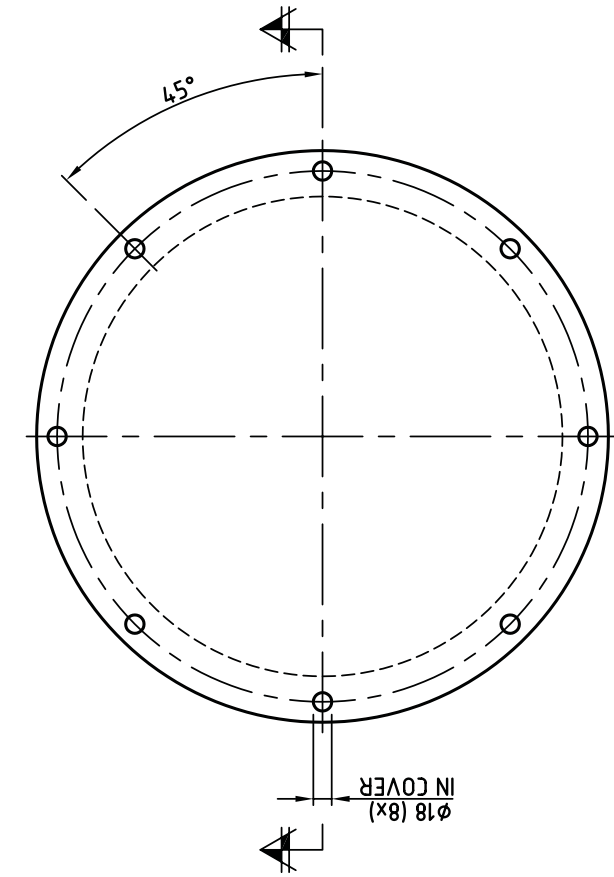
4	12	Bolt M16x30	Steel 8.8	DIN 933	Hot dipped galv.
3	1	Seal 48	Nitril		NBR 70° Shore A
2	1	Manhole cover	Steel Grade A		
1	1	Manhole ring	Steel Grade A		
Pos.	Qty.	Description	Material	Type/Drw. No.	Remarks
Format		Subject: STEEL MANHOLE C/O 450			
A3		Component: TYPE C - 12 BOLTS			
Rev.		Drawingnumber: 513.02 C			
		Drawn : BCS			
		Date : 12-02-2005			
		Scale : 1:5 / 1:2			

**THORMARINE**

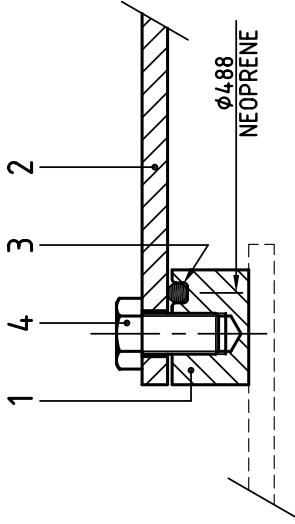
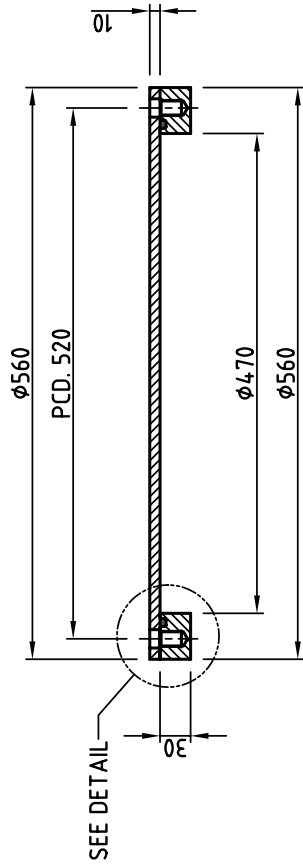


**TOP VIEW**

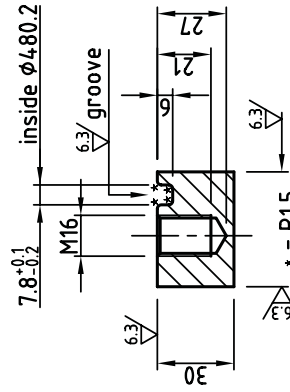
6.3/ (V)



**SECTION**



**DETAIL**



PART DATA	
Part no.	51.ST.513.05
Number per component	1
Material	STEEL GRADE A Grade A - LRS
Belonging to drawing	-
Remarks	Sharp edges to be removed

4	8	Bolt M16x30	Steel 8.8	DIN 933	Hot dipped galv.
3	1	Seal Ø8	Nitril		NBR 70° Shore A
2	1	Manhole cover	Steel Grade A		
1	1	Manhole ring	Steel Grade A		
Pos.	Qty.	Description	Material	Type/Drw. No.	Remarks
Format		Subject: STEEL MANHOLE C/O Ø450			
A3		Component: TYPE D - 8 BOLTS			
Drawing number:		513.05			
Rev.		B			

**THORMARINE**

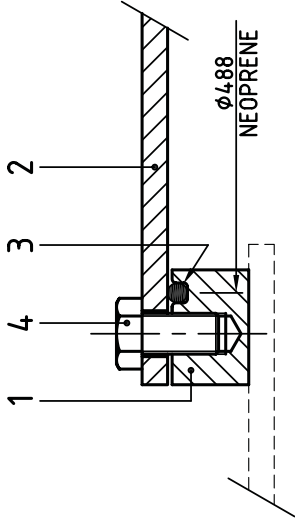
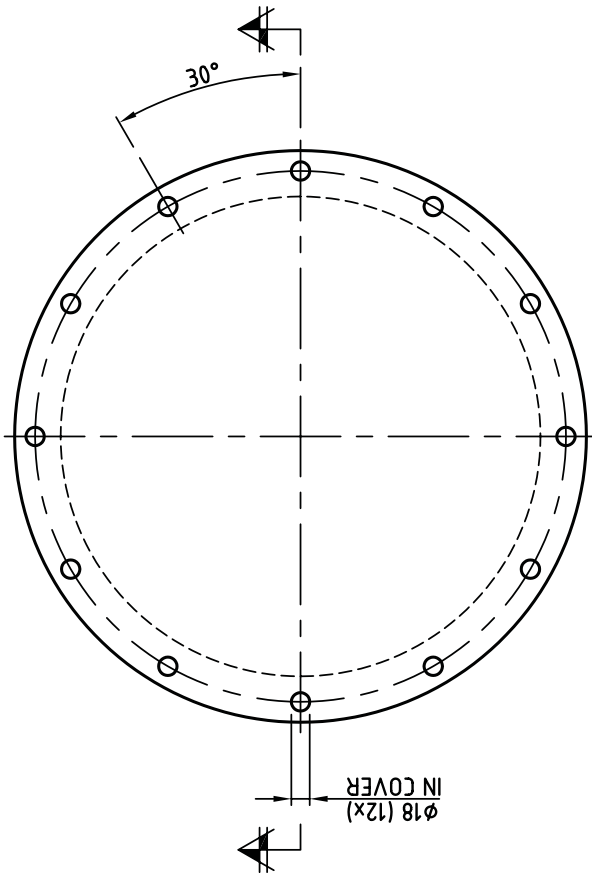
Drawn : BCS  
Date : 12-02-2005  
Scale : 1:5 / 1:2



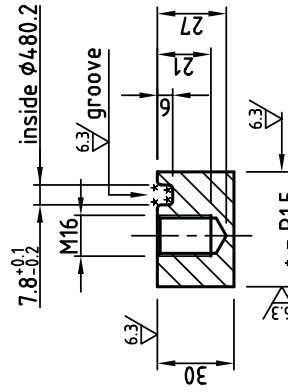


**TOP VIEW**

$\sqrt{6.3}$

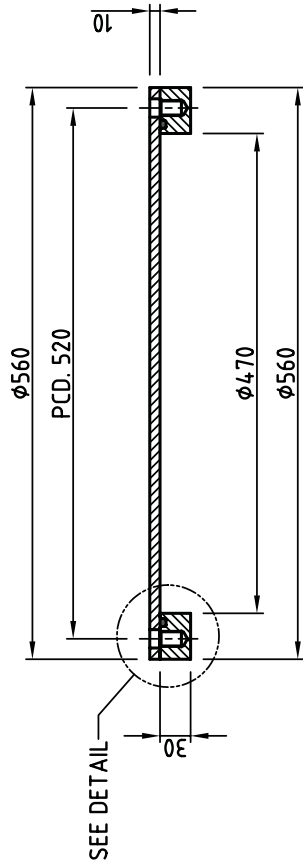


**DETAIL**



PART DATA	
Part no.	51.ST.513.06
Number per component	1
Material	STEEL GRADE A Grade A - LRS
Belonging to drawing	-
Remarks	Sharp edges to be removed

**SECTION**



4	12	Bolt M16x30	Steel 8.8	DIN 933	Hot dipped galv.
3	1	Seal $\phi 8$	Nitril		NBR 70° Shore A
2	1	Manhole cover	Steel Grade A		
1	1	Manhole ring	Steel Grade A		
Pos.	Qty.	Description	Material	Type/Draw. No.	Remarks
Format		Subject: STEEL MANHOLE C/O $\phi 450$			
A3		Component: TYPE D - 12 BOLTS			
Rev.		Drawingnumber: 513.06			
B		Rev.			

**THORMARINE**

Drawn : BCS

Date : 12-02-2005

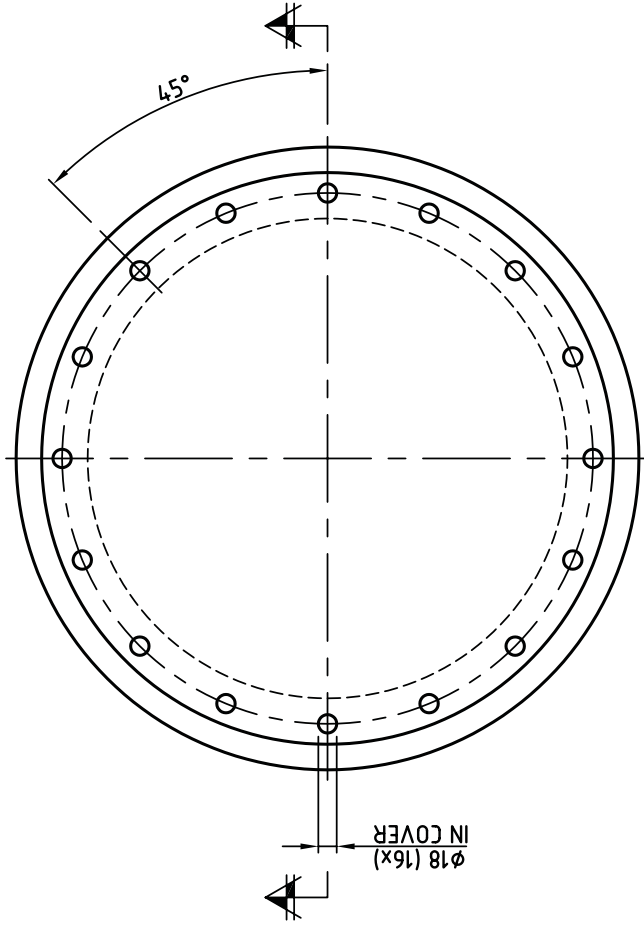
Scale : 1:5 / 1:2

10cm

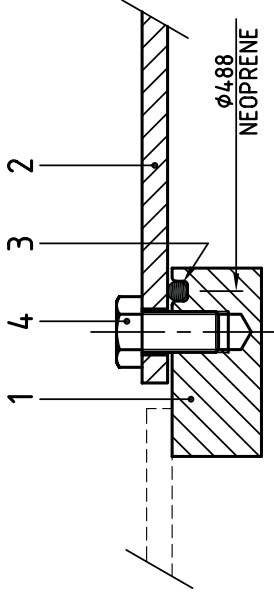
5

0cm

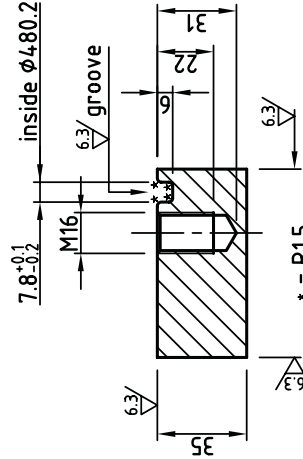
**TOP VIEW**



6.3/ (6.3/)

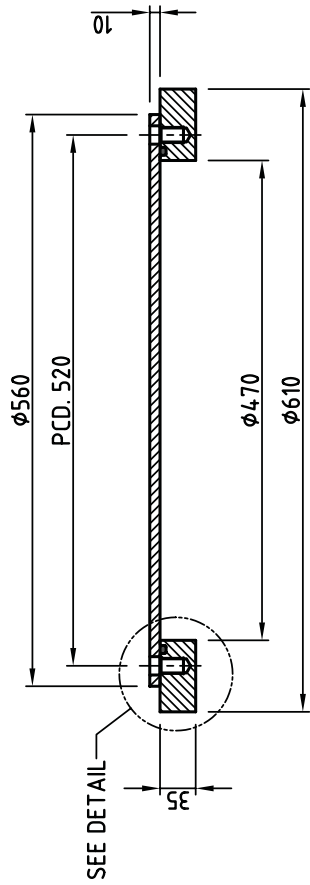


**DETAIL**



PART DATA	
Part no.	51.ST.513.08
Number per component	1
Material	STEEL GRADE A Grade A - LRS
Belonging to drawing	-
Remarks	Sharp edges to be removed

**SECTION**



4	16	Bolt M16x30	Steel 8.8	DIN 933	Hot dipped galv.
3	1	Seal φ8	Nitril		NBR 70° Shore A
2	1	Manhole cover	Steel Grade A		
1	1	Manhole ring	Steel Grade A		
Pos.	Qty.	Description	Material	Type/Drw. No.	Remarks
Format		Subject: STEEL MANHOLE C/O φ470			
A3		Component: TYPE I FLUSH - 16 BOLTS			
Rev.		Drawing number: 513.08 A			

Drawn : BCS	
Date : 12-02-2005	
Scale : 1:5 / 1:2	

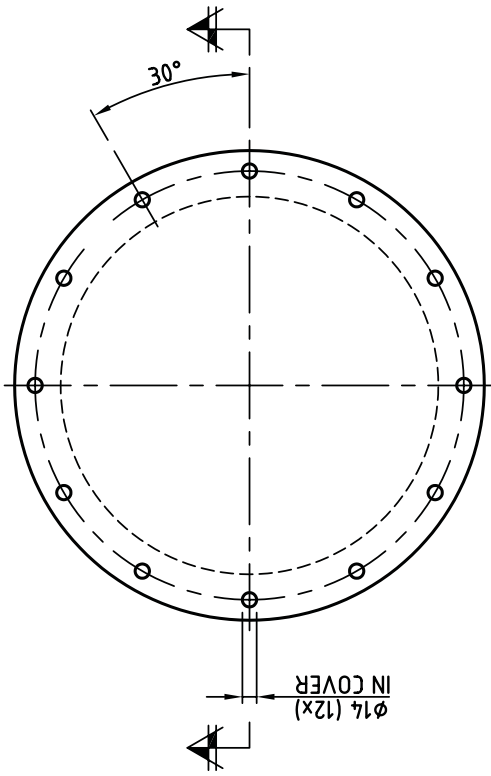
**THORMARINE**

10cm

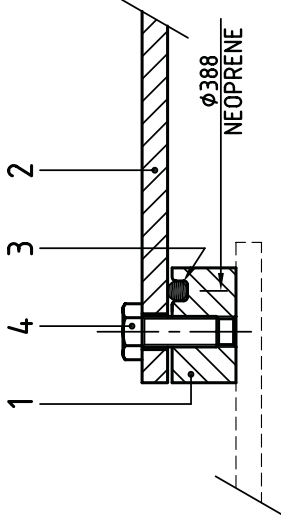
5

0cm

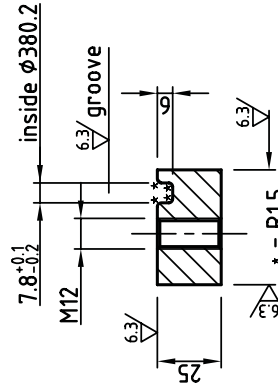
**TOP VIEW**



$\sqrt{6.3}$

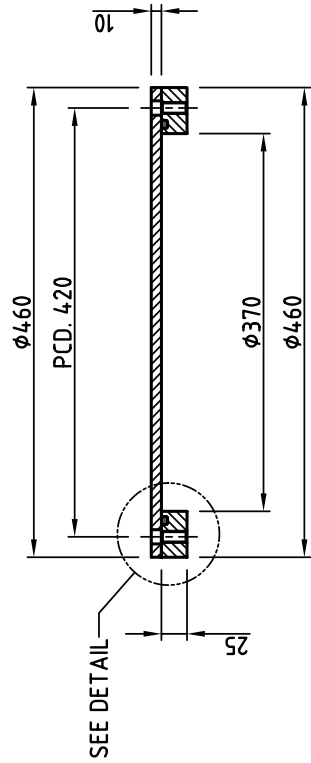


**DETAIL**



PART DATA	
Part no.	51.ST.510.03
Number per component	1
Material	STEEL GRADE A Grade A - LRS
Belonging to drawing	-
Remarks	Sharp edges to be removed

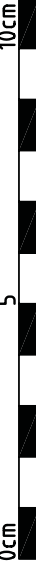
**SECTION**



Pos.	Qty.	Description	Material	Type/Draw. No.	Remarks
4	12	Bolt M12x30	Steel 8.8	DIN 933	Hot dipped galv.
3	1	Seal Ø8	Nitril		NBR 70° Shore A
2	1	Manhole cover	Steel Grade A		
1	1	Manhole ring	Steel Grade A		
Format		Subject: STEEL MANHOLE C/O Ø350			
A3		Component: TYPE T - 12 BOLTS			
Drawing number:		510.03			
Rev.		-			

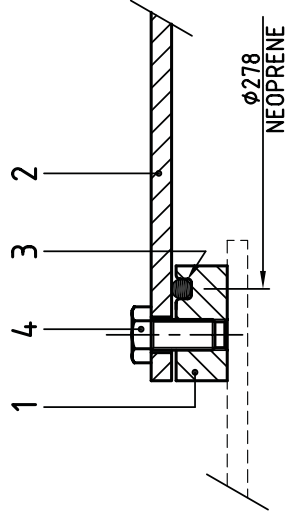
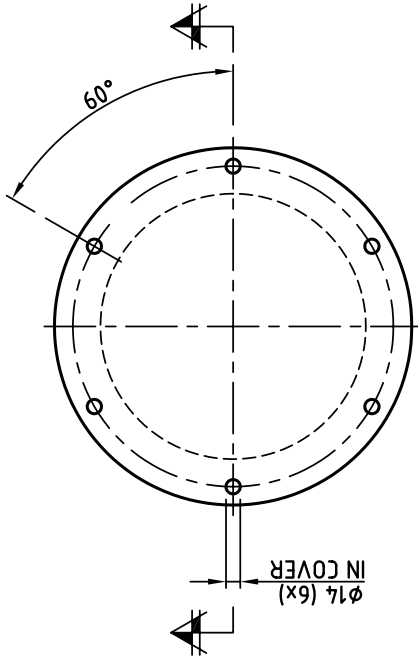
**THOR MARINE**

Drawn : BCS  
Date : 12-02-2005  
Scale : 1:5 / 1:2

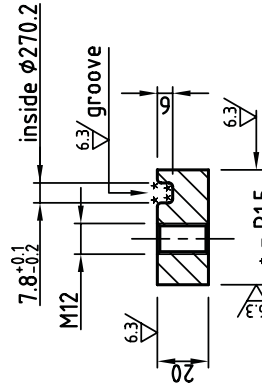


6.3/

**TOP VIEW**

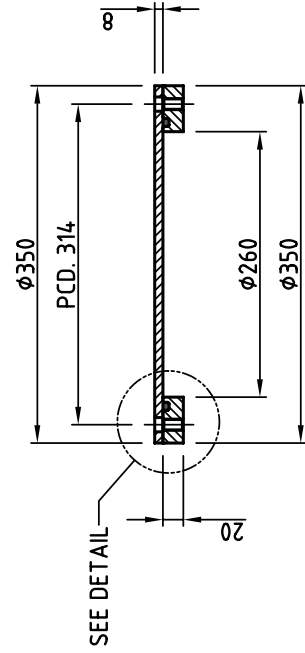


**DETAIL**



PART DATA	
Part no.	51.ST.510.02
Number per component	1
Material	STEEL GRADE A Grade A - LRS
Belonging to drawing	-
Remarks	Sharp edges to be removed

**SECTION**



Pos.	Qty.	Description	Material	Type/Draw. No.	Remarks
4	6	Bolt M12x25	Steel 8.8	DIN 933	Hot dipped galv.
3	1	Seal Ø8	Nitril		NBR 70° Shore A
2	1	Manhole cover	Steel Grade A		
1	1	Manhole ring	Steel Grade A		
Format		Subject: STEEL HANDHOLE C/O Ø240			
A3		Component: TYPE S - 6 BOLTS			
Drawing number:		510.02			
Rev.		B			

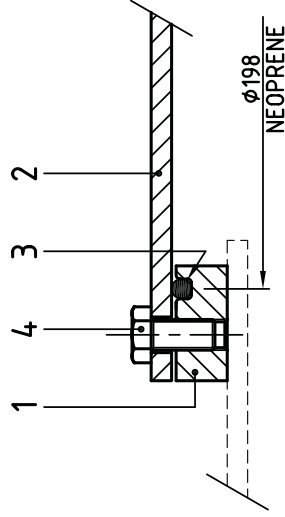
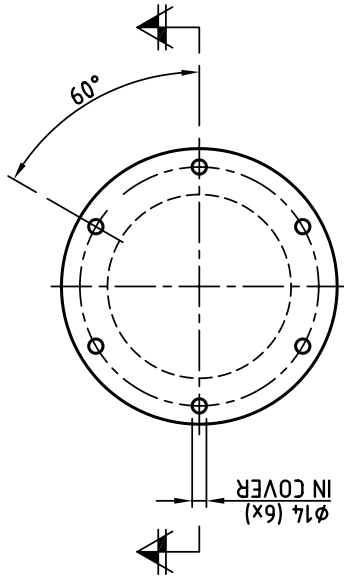
**THORMARINE**

Drawn : BCS  
Date : 12-02-2005  
Scale : 1:5 / 1:2

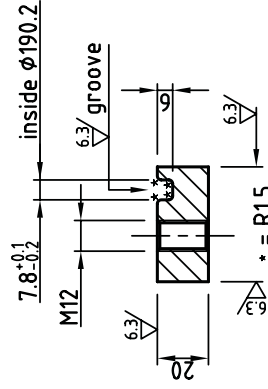
0cm 5 10cm

6.3

**TOP VIEW**

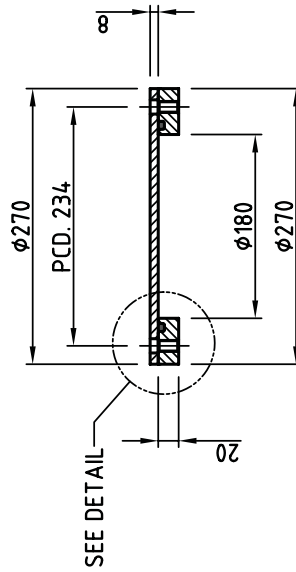


**DETAIL**



PART DATA	
Part no.	51.ST.510.01
Number per component	1
Material	STEEL GRADE A Grade A - LRS
Belonging to drawing	-
Remarks	Sharp edges to be removed

**SECTION**



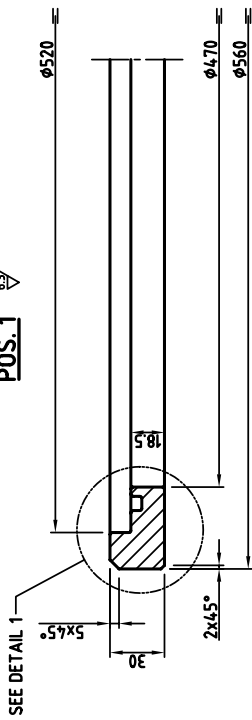
Pos.	Qty.	Description	Material	Type/Drw. No.	Remarks
4	6	Bolt M12x25	Steel 8.8	DIN 933	Hot dipped galv.
3	1	Seal Ø8	Nitril		NBR 70° Shore A
2	1	Manhole cover	Steel Grade A		
1	1	Manhole ring	Steel Grade A		

Format	Subject:	Drawingnumber:	Rev.
A3	STEEL HANDHOLE C/O Ø160	510.01	B
	Component:		
	TYPE R - 6 BOLTS		

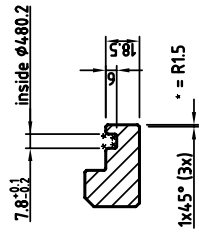
**THORMARINE**



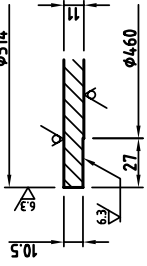
**POS. 1**  $\nabla$  ( $\nabla$ )



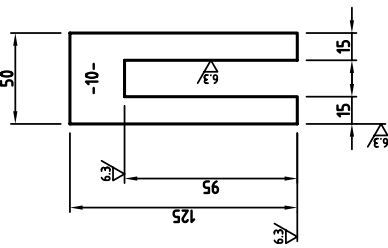
**DETAIL 1**  $\nabla$  ( $\nabla$ )



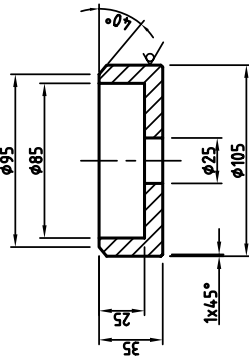
**DETAIL 2**



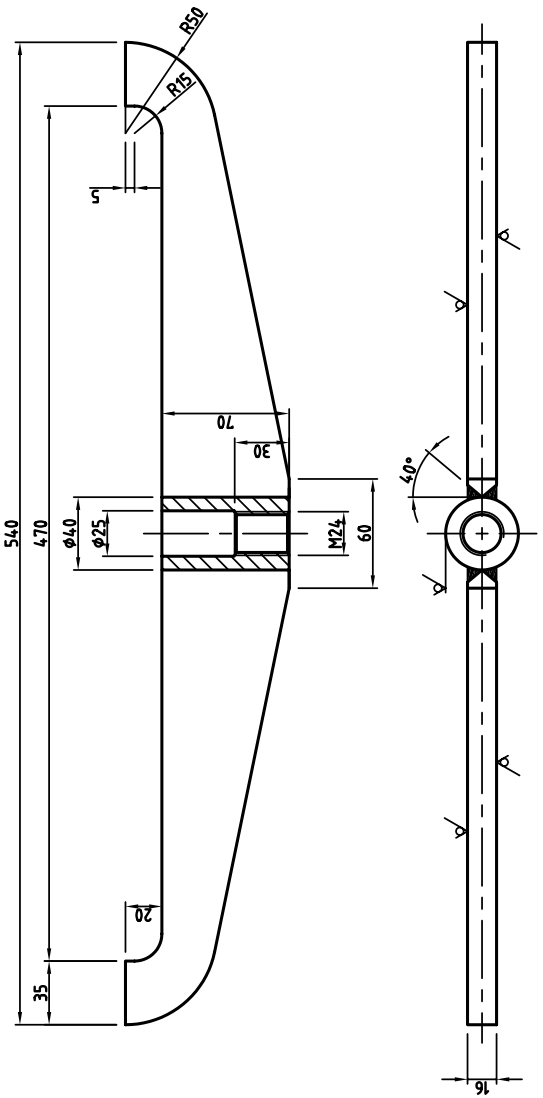
**POS. 3**  $\nabla$  ( $\nabla$ )



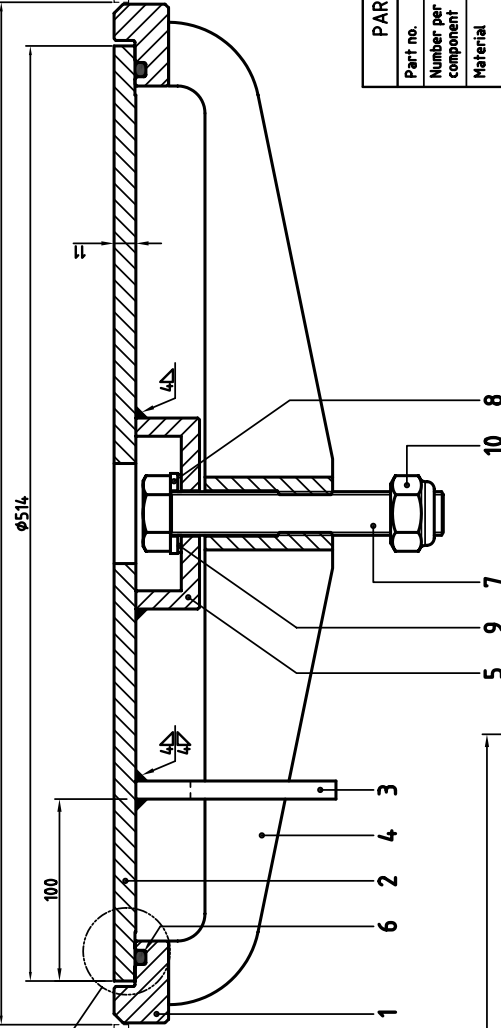
**POS. 5**  $\nabla$  ( $\nabla$ )



**POS. 4**  $\nabla$  ( $\nabla$ )



H.I.P.  $\phi$ 562



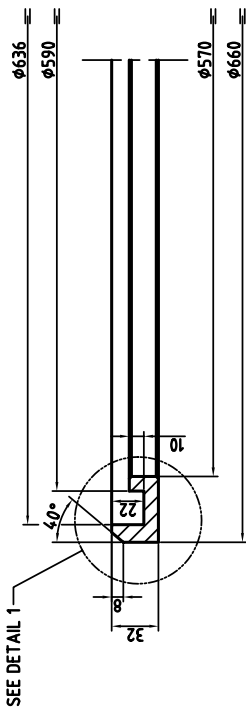
PART DATA	
Part no.	51ST540.01
Number per component	1
Material	STEEL GRADE A Grade A - LRS
Belonging to drawing	-
Remarks	Sharp edges to be removed

NOTE: THREAD BUSH TO BE MADE OF STAINLESS STEEL 316

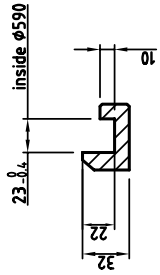
Pos.	Qty.	Description	Material	Type/Drw. No.	Remarks
10	1	Self locking nut M24	Stainless Steel DIN 985	St.St. A4	
9	1	Washer M24	Stainless Steel DIN 125A	St.St. A4	
8	1	Plain washer $\phi$ 4.3x $\phi$ 25x3mm	Nitril	NBR 70° Shore A	
7	1	Bolt M24x150	Stainless Steel DIN 933	St.St. A4	
6	1	Seal $\phi$ 8	Nitril	NBR 70° Shore A	
5	1	Recessed bolt housing	Steel Grade A		
4	1	Lever	Steel Grade A		
3	1	Bracket	Steel Grade A		
2	1	Manhole cover	Steel Grade A		
1	1	Manhole ring	Steel Grade A		
					Thread bush St. St.
Formal:	A2	Subject:	STEEL MANHOLE C/0 $\phi$ 470		
		Component:	TYPE CENTRAL CLOSED FLUSH $\phi$ 560/ $\phi$ 470		
		Drawing number:	540.01		
		Rev.	B		
		Drawn:	BCS		
		Date:	12-02-2005		
		Scale:	1:12		

**THORMARINE**

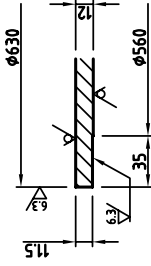
POS.1



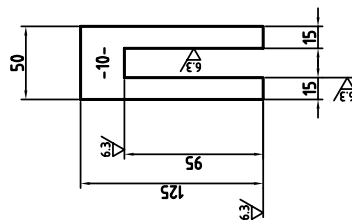
DETAIL 1



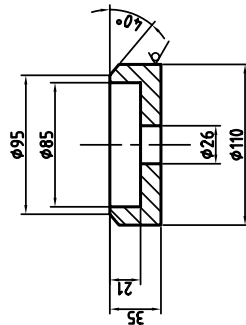
DETAIL 2



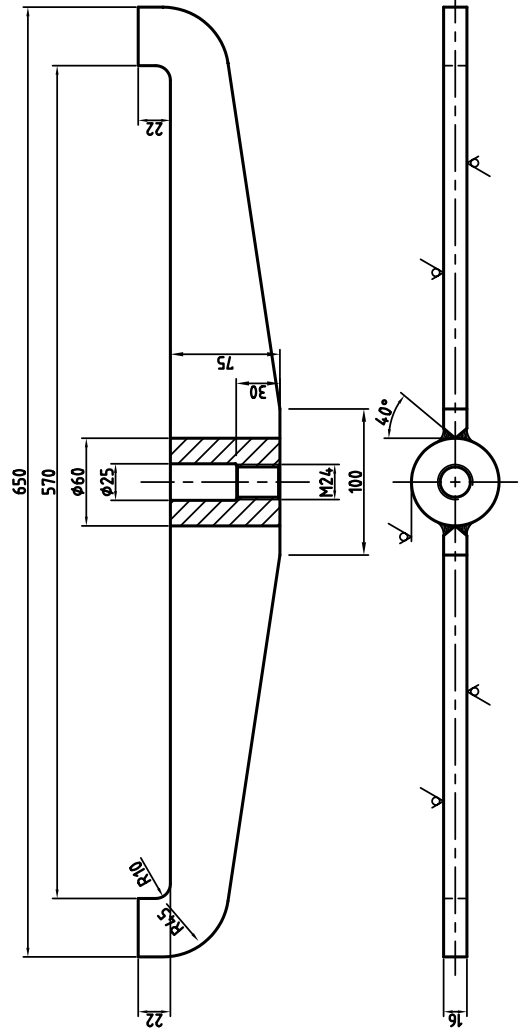
POS.3



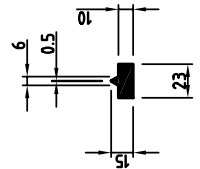
POS.5



POS.4



POS.6



H.I.P. 662

630

560

PART DATA	
Part no.	51ST.540.02
Number per component	1
Material	STEEL GRADE A Grade A - LRS
Belonging to drawing	-
Remarks	Sharp edges to be removed

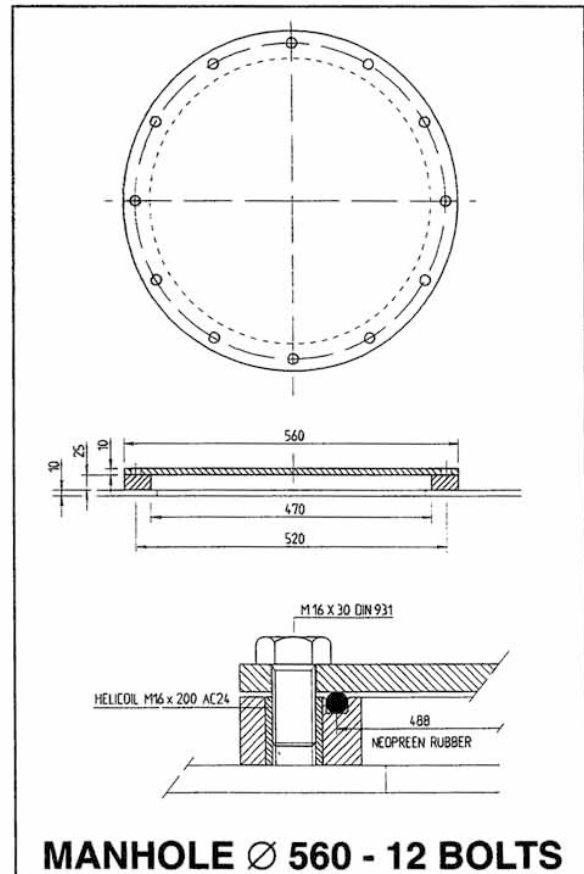
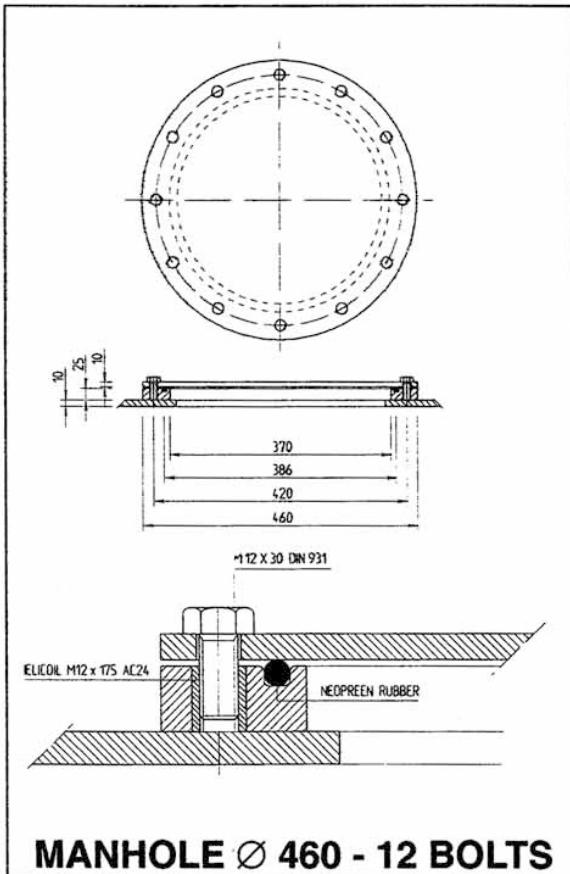
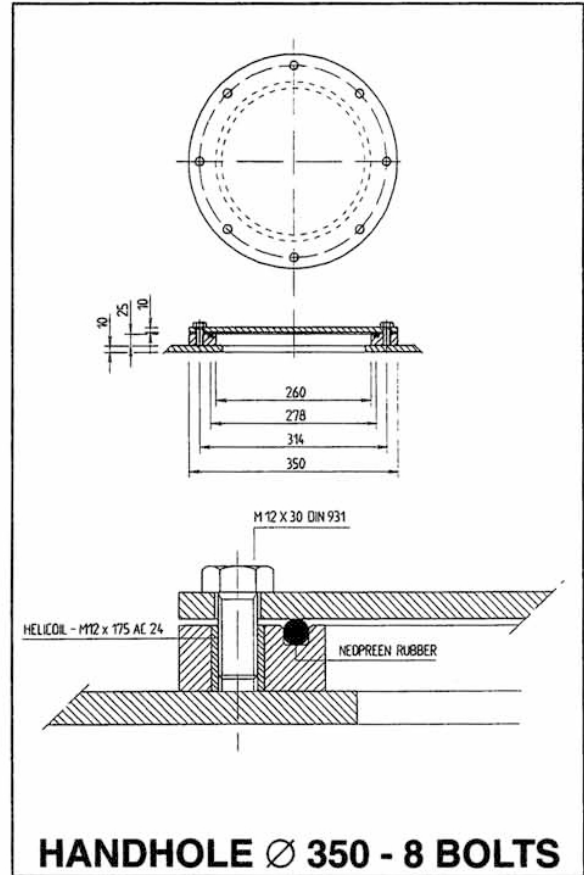
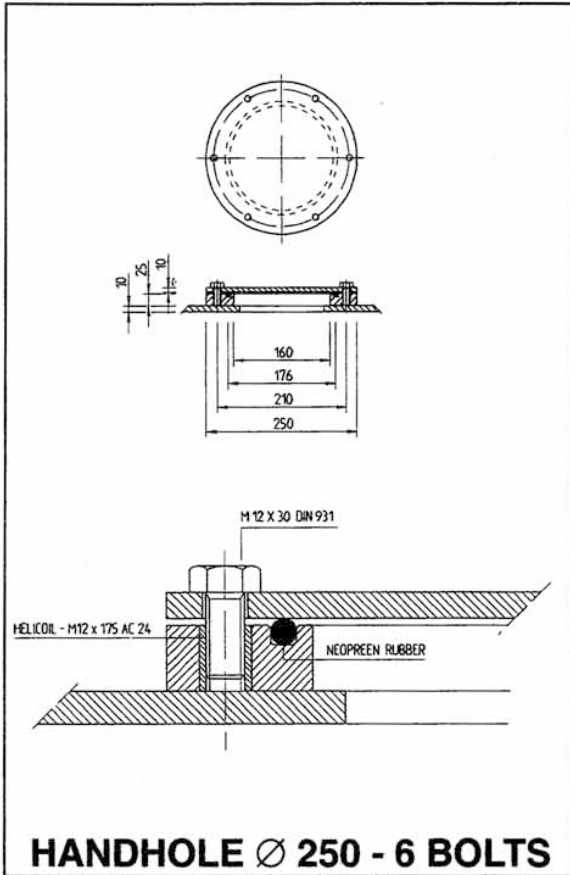
NOTE: THREAD BUSH TO BE MADE OF STAINLESS STEEL 316

Pos.	Qty.	Description	Material	Type/Drw. No.	Remarks
10	1	Self locking nut M24	Stainless Steel DIN 985	St.St. A4	
9	1	Washer M24	Stainless Steel DIN 125A	St.St. A4	
8	1	Plain washer 44.3x42.5x3mm	Nitril	NBR 70° Shore A	
7	1	Bolt M24x150	Stainless Steel DIN 933	St.St. A4	
6	1	Seal 23x10	Nitril	NBR 70° Shore A	
5	1	Recessed bolt housing	Steel Grade A		
4	1	Lever	Steel Grade A		
3	1	Bracket	Steel Grade A		
2	1	Manhole cover	Steel Grade A		
1	1	Manhole ring	Steel Grade A		
					Thread bush St.St.
Format	A2				
Subject	STEEL MANHOLE C/O 6570				
Component	TYPE CENTRAL CLOSED FLUSH 660/6570				
Drawing number	540.02 B				
Rev.	B				
Drawn	BCS				
Date	12-02-2005				
Scale	1:2.5				

THORMARINE

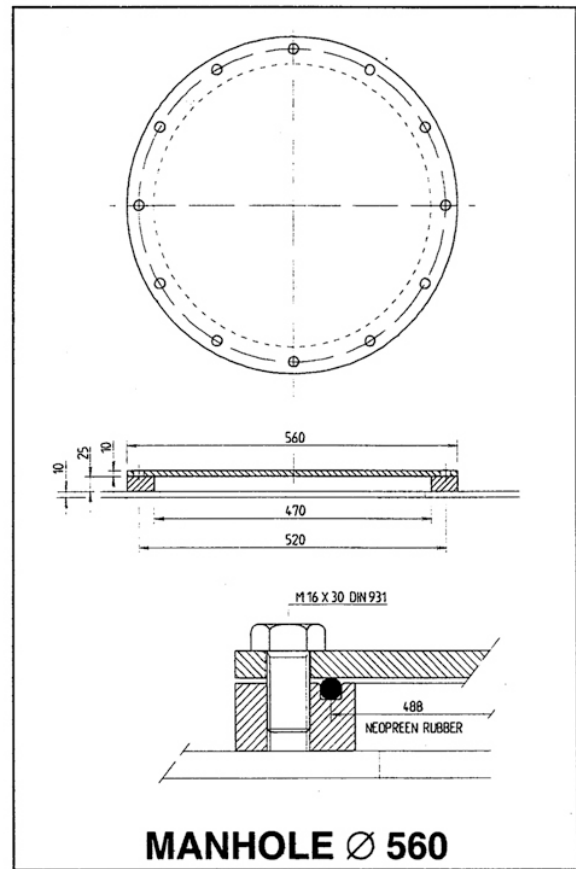
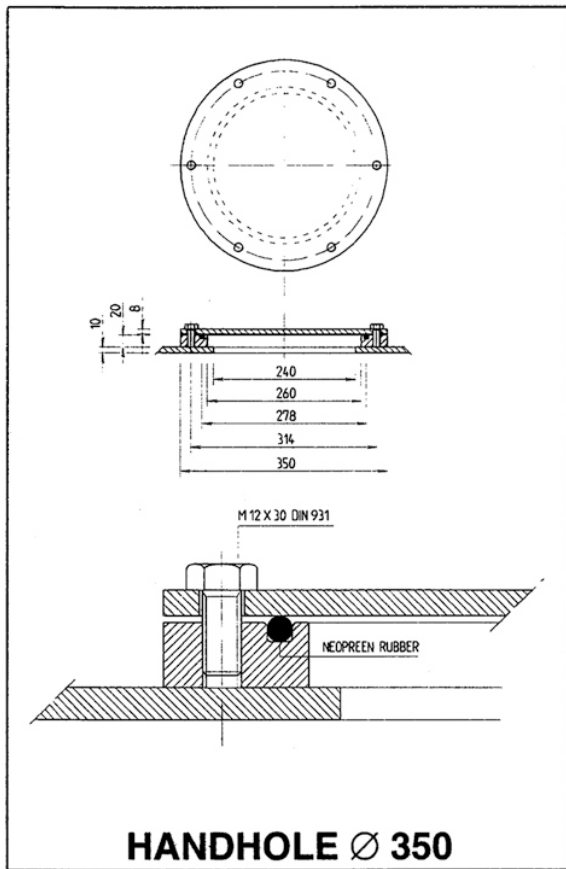
10cm

# HANDHOLES - MANHOLES ALUMINIUM





# HANDHOLES - MANHOLES STAINLESS STEEL



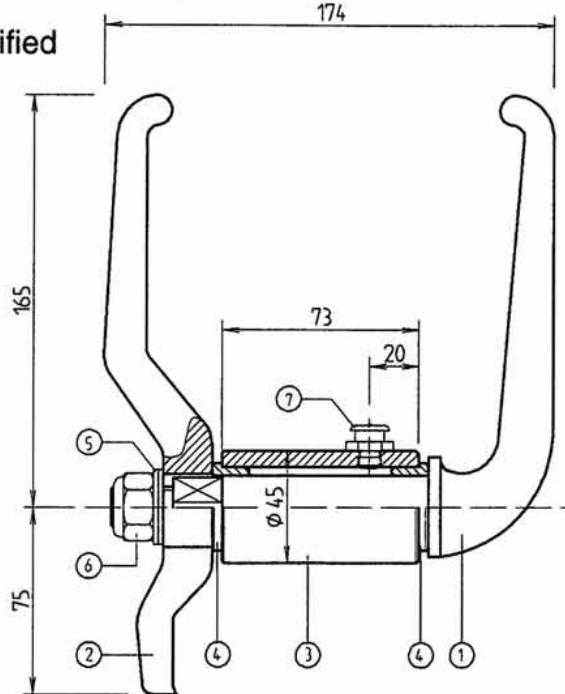
# DOORTOGGLE

Nominal size: 73 mm  
 Performance: Staal/Staal  
 Steel/Steel  
 Stahl/Stahl  
 Acier/Acier  
 Weight: 2,5 kg

Part No:

**73.ST.400.00**

DIN 83104 modified



7	Smeernippel	1/8 G Messing	
6	Zelfborgende moer	M16st DIN 985-8	
5	Sluitering	M16st DIN 125A	
4	Lagerbus	Messing	80.ST.401.04
3	Buitenbus	Staal	73.ST.400.03
2	Hendel	Staal	80.ST.401.02
1	Hendel met as	Staal	73.ST.400.01
Pos. nr.	Beschrijving	Type/Mat.	Art. nr.
7	Lubrication nipple	1/8 G Brass	
6	Selflocking nut	M16st DIN 985-8	
5	Washer	M16st DIN 125A	
4	Bearing bush	Brass	80.ST.401.04
3	Outside bush	Steel	73.ST.400.03
2	Handle	Steel	80.ST.401.02
1	Handle with shaft	Steel	73.ST.400.01
Pos. nr.	Description	Type/Mat.	Art nr.
7	Schmiernippel	1/8 G Messing	
6	Selbstschliessende Mutter	M16st DIN 985-8	
5	Federring	M16st DIN 125A	
4	Lagerbuchse	Messing	80.ST.401.04
3	Aussenbuchse	Stahl	73.ST.400.03
2	Hebel	Stahl	80.ST.401.02
1	Hebel mit Achse	Stahl	73.ST.400.01
Pos. Nr.	Beschreibung	Type/Mat.	Art. nr.
7	Nipple de graissage	1/8 G Laiton	
6	Boulon indessarrable	M16st DIN 985-8	
5	Rondelle élastique bombée	M16st DIN 125A	
4	Coussinet	Laiton	80.ST.401.04
3	Boîtier extérieur	Acier	73.ST.400.03
2	Poignée	Acier	80.ST.401.02
1	Poignée avec axe	Acier	73.ST.400.01
Pos. nr.	Beschrijving	Type/Mat.	Art. nr.

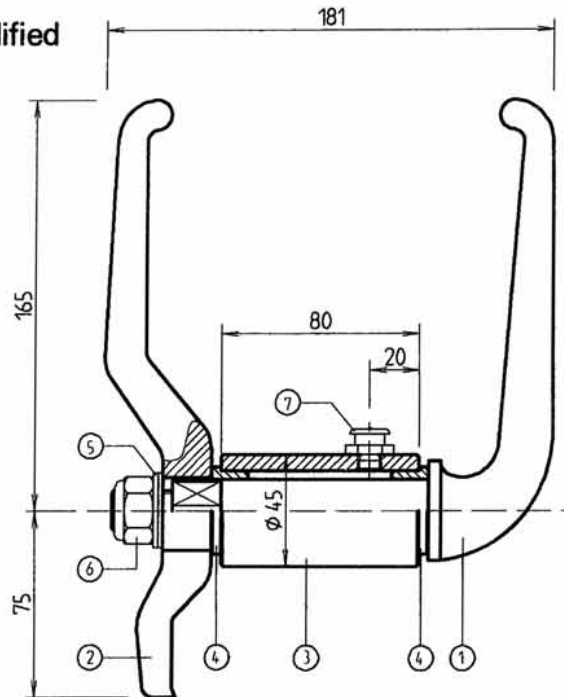
# DOORTOGGLE

Nominal size: 80 mm  
 Performance: Staal/Staal  
 Steel/Steel  
 Stahl/Stahl  
 Acier/Acier  
 Weight: 2,5 kg

Part No.

## 80.ST.401.00

DIN 83104 modified



7	Smeernippel	1/8 G Messing	
6	Zelfborgende moer	M16st DIN 985-8	
5	Sluistring	16.3 2%	
4	Lagerbus	Messing	80.ST.401.04
3	Buitenbus	Staal	80.ST.401.03
2	Hendel	Staal	80.ST.401.02
1	Hendel met as	Staal	80.ST.401.01
Pos. nr.	Beschrijving	Type/Mat.	Art. nr.
7	Lubrication nipple	1/8 G Brass	
6	Selflocking nut	M16st DIN 985-8	
5	Washer	16.3 2%	
4	Bearing bush	Brass	80.ST.401.04
3	Outside bush	Steel	80.ST.401.03
2	Handle	Steel	80.ST.401.02
1	Handle with shaft	Steel	80.ST.401.01
Pos. nr.	Description	Type/Mat.	Art. nr.
7	Schmiernippel	1/8 G Messing	
6	Selbstschliessende Mutter	M16st DIN 985-8	
5	Federring	16.3 2%	
4	Lagerbuchse	Messing	80.ST.401.04
3	Aussenbuchse	Stahl	80.ST.401.03
2	Hebel	Stahl	80.ST.401.02
1	Hebel mit Achse	Stahl	80.ST.401.01
Pos. Nr.	Beschreibung	Typ/Mat.	Art. Nr.
7	Nipple de graissage	1/8 G Laiton	
6	Boulon indessarrable	M16st DIN 985-8	
5	Rondelle élastique bombée	16.3 2%	
4	Coussinet	Laiton	80.ST.401.04
3	Boîtier extérieur	Acier	80.ST.401.03
2	Poignée	Acier	80.ST.401.02
1	Poignée avec axe	Acier	80.ST.401.01
Pos. nr.	Description	Type/Mat.	Art. nr.

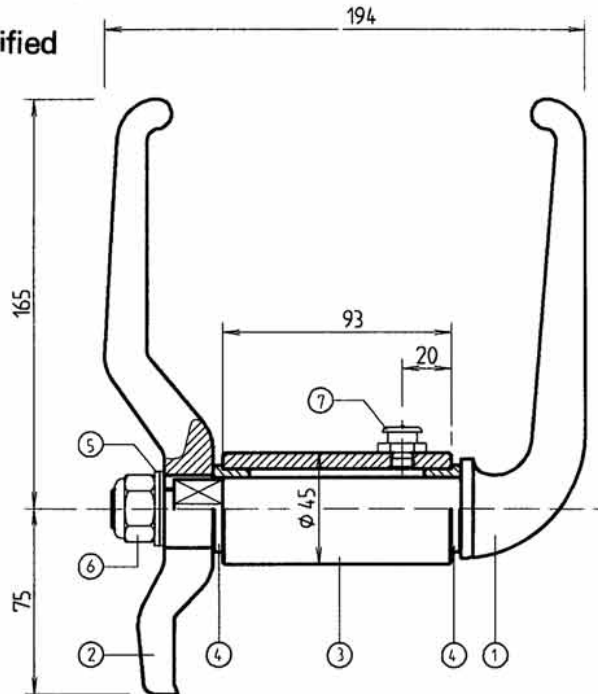
# DOORTOGGLE

Nominal size: 93 mm  
 Performance: Staal/Staal  
 Steel/Steel  
 Stahl/Stahl  
 Acier/Acier  
 Weight: 2,5 kg

Part No.

**93.ST.402.00**

DIN 83104 modified



7	Smeernippel	1/8 G Messing	
6	Zelfborgende moer	M16st DIN 985-8	
5	Sluitring	16.3 2%	
4	Lagerbus	Messing	80.ST.401.04
3	Buitenbus	Staal	93.ST.402.03
2	Hendel	Staal	80.ST.401.02
1	Hendel met as	Staal	93.ST.402.01
Pos. nr.	Beschrijving	Type/Mat.	Art. nr.
7	Lubrication nipple	1/8 G Brass	
6	Selflocking nut	M16st DIN 985-8	
5	Washer	16.3 2%	
4	Bearing bush	Brass	80.ST.401.04
3	Outside bush	Steel	93.ST.402.03
2	Handle	Steel	80.ST.401.02
1	Handle with shaft	Steel	93.ST.402.01
Pos. nr.	Description	Type/Mat.	Art. nr.
7	Schmiernippel	1/8 G Messing	
6	Selbstschliessende Mutter	M16st DIN 985-8	
5	Federring	16.3 2%	
4	Lagerbuchse	Messing	80.ST.401.04
3	Aussenbuchse	Stahl	93.ST.402.03
2	Hebel	Stahl	80.ST.401.02
1	Hebel mit Achse	Stahl	93.ST.402.01
Pos. Nr.	Beschreibung	Typ/Mat.	Art. Nr.
7	Nipple de graissage	1/8 G Laiton	
6	Boulon indessarrable	M16st DIN 985-8	
5	Rondelle élastique bombée	16.3 2%	
4	Coussinet	Laiton	80.ST.401.04
3	Boîtier extérieur	Acier	93.ST.402.03
2	Poignée	Acier	80.ST.401.02
1	Poignée avec axe	Acier	93.ST.402.01
Pos. nr.	Description	Type/Mat.	Art. nr.

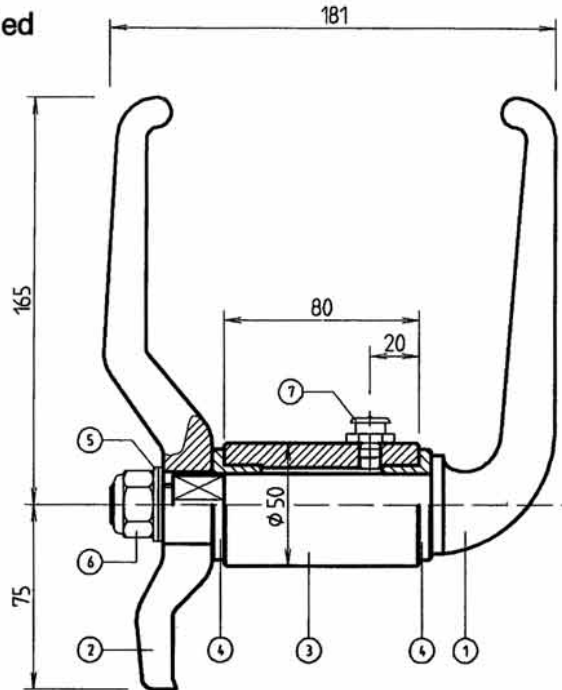
# DOORTOGGLE

Nominal size: 80 mm  
 Performance: Staal/Aluminium  
 Steel/Aluminium  
 Stahl/Aluminium  
 Acier/Aluminium  
 Weight: 2,5 kg

Part No.

**80.AL.403.00**

DIN 83104 modified



7	Smeernippel	1/8 G Messing	
6	Zelfborgende moer	M16st DIN 985-8	
5	Sluiring	16.3 2%	
4	Lagerbus	Nylon	80.AL.403.04
3	Buitenbus	Aluminium	80.AL.403.03
2	Hendel	Staal	80.ST.401.02
1	Hendel met as	Staal	93.ST.401.01
Pos. nr.	Beschrijving	Type/Mat.	Art. nr.
7	Lubrication nipple	1/8 G Brass	
6	Selflocking nut	M16st DIN 985-8	
5	Washer	16.3 2%	
4	Bearing bush	Nylon	80.AL.403.04
3	Outside bush	Aluminium	80.AL.403.03
2	Handle	Steel	80.ST.401.02
1	Handle with shaft	Steel	80.ST.401.01
Pos. nr.	Description	Type/Mat.	Art. nr.
7	Schmiernippel	1/8 G Messing	
6	Selbstschiessende Mutter	M16st DIN 985-8	
5	Federring	16.3 2%	
4	Lagerbuchse	Nylon	80.AL.403.04
3	Aussenbuchse	Aluminium	80.AL.403.03
2	Hebel	Stahl	80.ST.401.02
1	Hebel mit Achse	Stahl	80.ST.401.01
Pos. Nr.	Beschreibung	Typ/Mat.	Art. Nr.
7	Nipple de graissage	1/8 G Laiton	
6	Boulon indessarrable	M16st DIN 985-8	
5	Rondelle élastique bombée	16.3 2%	
4	Coussinet	Nylon	80.AL.403.04
3	Boîtier extérieur	Aluminium	80.AL.403.03
2	Poignée	Acier	80.ST.401.02
1	Poignée avec axe	Acier	80.ST.401.01
Pos. nr.	Description	Type/Mat.	Art. nr.

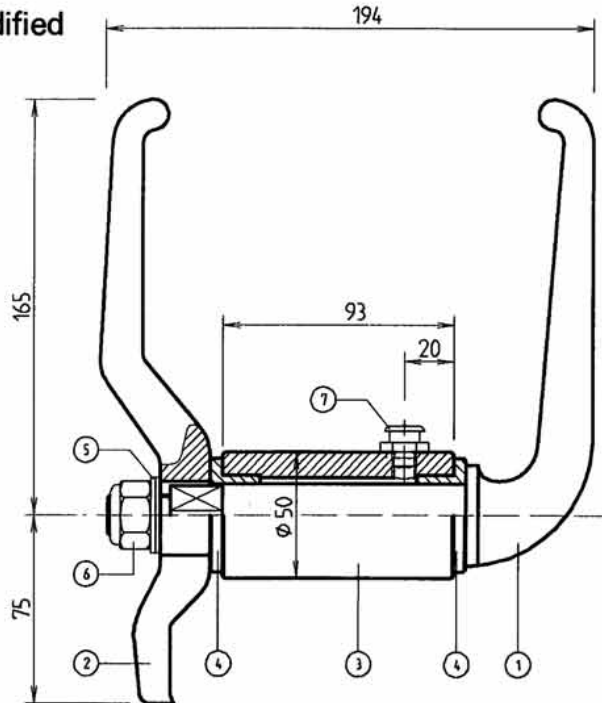
# DOORTOGGLE

Nominal size: 93 mm  
 Performance: Staal/Aluminium  
 Steel/Aluminium  
 Stahl/Aluminium  
 Acier/Aluminium  
 Weight: 2,5 kg

Part No.

## 93.AL.404.00

DIN 83104 modified



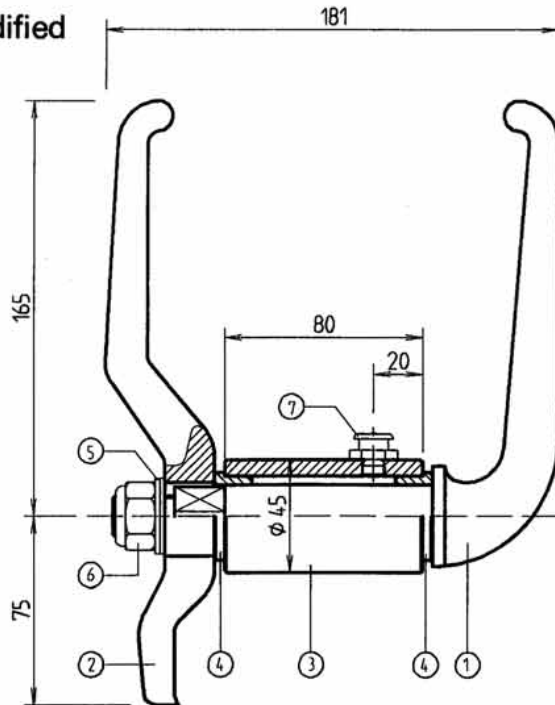
7	Smeernippel	1/8 G Messing	
6	Zelfborgende moer	M16st DIN 985-8	
5	Sluitering	16.3 2%	
4	Lagerbus	Nylon	80.AL.403.04
3	Buitenbus	Aluminium	93.AL.404.03
2	Hendel	Staal	80.ST.401.02
1	Hendel met as	Staal	93.ST.402.01
Pos. nr.	Beschrijving	Type/Mat.	Art. nr.
7	Lubrication nipple	1/8 G Brass	
6	Selflocking nut	M16st DIN 985-8	
5	Washer	16.3 2%	
4	Bearing bush	Nylon	80.AL.403.04
3	Outside bush	Aluminium	93.AL.404.03
2	Handle	Steel	80.ST.401.02
1	Handle with shaft	Steel	93.ST.402.01
Pos. nr.	Description	Type/Mat.	Art. nr.
7	Schmiernippel	1/8 G Messing	
6	Selbstschliessende Mutter	M16st DIN 985-8	
5	Federring	16.3 2%	
4	Lagerbuchse	Nylon	80.AL.403.04
3	Aussenbuchse	Aluminium	93.AL.404.03
2	Hebel	Stahl	80.ST.401.02
1	Hebel mit Achse	Stahl	93.ST.402.01
Pos. Nr.	Beschreibung	Typ/Mat.	Art. Nr.
7	Nipple de graissage	1/8 G Laiton	
6	Boulon indessarrable	M16st DIN 985-8	
5	Rondelle élastique bombée	16.3 2%	
4	Coussinet	Nylon	80.AL.403.04
3	Boîtier extérieur	Aluminium	93.AL.404.03
2	Poignée	Acier	80.ST.401.02
1	Poignée avec axe	Acier	93.ST.402.01
Pos. nr.	Description	Type/Mat.	Art. nr.

# DOORTOGGLE

Nominal size: 80 mm  
 Performance: Roestvrij staal/Roestvrij staal  
 Stainless steel/Stainless steel  
 Rostfreier Stahl/Rostfreier Stahl  
 Acier inoxydable/Acier inoxydable  
 Weight: 2,5 kg

Part No.  
**80.SS.405.00**

DIN 83104 modified



7	Smeernippel	1/8 G Messing	
6	Zelfborgende moer	M16 SS-304 DIN 985-8	
5	Sluitering	16.3 2%	
4	Lagerbus	Messing	80.ST.401.04
3	Buitenbus	Roestvrij staal	80.SS.405.03
2	Hendel	Roestvrij staal	80.SS.405.02
1	Hendel met as	Roestvrij staal	80.SS.405.01
Pos. nr.	Beschrijving	Type/Mat.	Art. nr.
7	Lubrication nipple	1/8 G Brass	
6	Selflocking nut	M16 SS-304 DIN 985-8	
5	Washer	16.3 2%	
4	Bearing bush	Brass	80.ST.401.04
3	Outside bush	Stainless steel	80.SS.405.03
2	Handle	Stainless steel	80.SS.405.02
1	Handle with shaft	Stainless steel	80.SS.405.01
Pos. nr.	Description	Type/Mat.	Art. nr.
7	Schmiernippel	1/8 G Messing	
6	Selbstschliessende Mutter	M16 SS-304 DIN 985-8	
5	Federring	16.3 2%	
4	Lagerbuchse	Messing	80.ST.401.04
3	Aussenbuchse	Rostfreier Stahl	80.SS.405.03
2	Hebel	Rostfreier Stahl	80.SS.405.02
1	Hebel mit Achse	Rostfreier Stahl	80.SS.405.01
Pos. Nr.	Beschreibung	Typ/Mat.	Art. Nr.
7	Nipple de graissage	1/8 G Laiton	
6	Boulon indessarrable	M16 SS-304 DIN 985-8	
5	Rondelle élastique bombée	16.3 2%	
4	Coussinet	Laiton	80.ST.401.04
3	Boîtier extérieur	Acier inoxydable	80.SS.405.03
2	Poignée	Acier inoxydable	80.SS.405.02
1	Poignée avec axe	Acier inoxydable	80.SS.405.01
Pos. nr.	Description	Type/Mat.	Art. nr.

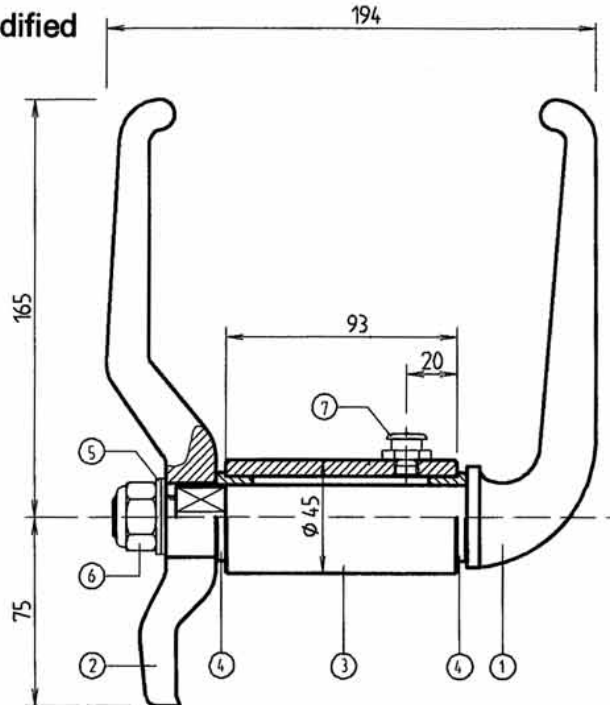
# DOORTOGGLE

Nominal size: 93 mm  
 Performance: Roestvrij staal/Roestvrij staal  
 Stainless steel/Stainless steel  
 Rostfreier Stahl/Rostfreier Stahl  
 Acier inoxydable/Acier inoxydable  
 Weight: 2,5 kg

Part No.

**93.SS.406.00**

DIN 83104 modified



7	Smeernippel	1/8 G Messing	
6	Zelfborgende moer	M16 SS-304 DIN 985-8	
5	Sluitering	16.3 2%	
4	Lagerbus	Messing	80.ST.401.04
3	Buitenbus	Roestvrij staal	93.SS.406.03
2	Hendel	Roestvrij staal	80.SS.405.02
1	Hendel met as	Roestvrij staal	93.SS.406.01
Pos. nr.	Beschrijving	Type/Mat.	Art. nr.
7	Lubrication nipple	1/8 G Brass	
6	Selflocking nut	M16 SS-304 DIN 985-8	
5	Washer	16.3 2%	
4	Bearing bush	Brass	80.ST.401.04
3	Outside bush	Stainless steel	93.SS.406.03
2	Handle	Stainless steel	80.SS.405.02
1	Handle with shaft	Stainless steel	93.SS.406.01
Pos. nr.	Description	Type/Mat.	Art. nr.
7	Schmiernippel	1/8 G Messing	
6	Selbstschliessende Mutter	M16 SS-304 DIN 985-8	
5	Federring	16.3 2%	
4	Lagerbuchse	Messing	80.ST.401.04
3	Aussenbuchse	Rostfreier Stahl	93.SS.406.03
2	Hebel	Rostfreier Stahl	80.SS.405.02
1	Hebel mit Achse	Rostfreier Stahl	93.SS.406.01
Pos. Nr.	Beschreibung	Typ/Mat.	Art. Nr.
7	Nipple de graissage	1/8 G Laiton	
6	Boulon indessarrable	M16 SS-304 DIN 985-8	
5	Rondelle élastique bombée	16.3 2%	
4	Coussinet	Laiton	80.ST.401.04
3	Boîtier extérieur	Acier inoxydable	93.SS.406.03
2	Poignée	Acier inoxydable	80.SS.405.02
1	Poignée avec axe	Acier inoxydable	93.SS.406.01
Pos. nr.	Description	Type/Mat.	Art. nr.



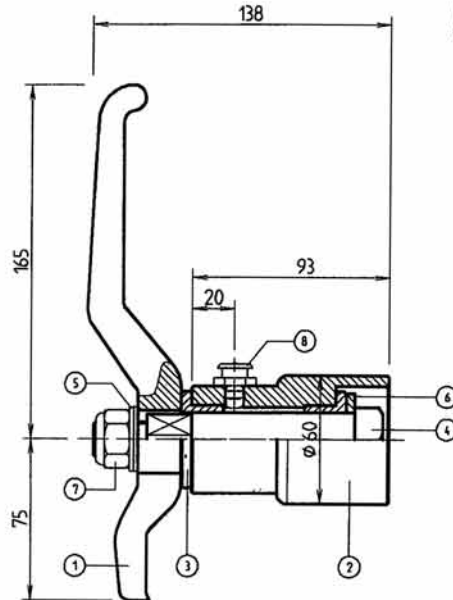
# DOORTOGGLE

Nominal size: 93 mm  
 Performance: Staal/Staal  
 Steel/Steel  
 Stahl/Stahl  
 Acier/Acier  
 Weight: 1,6 kg

DIN 83104modified

Part No.

**93.ST.421.00**



8	Smeernippel	1/8 G Messing	
7	Zelfborgende moer	M16 SS-304 DIN 985-8	
6	Sluistring	M24 SS-316	
5	Sluistring	16.3 SS-316	
4	As	SS-316	93.SS.421.05
3	Lagerbus	Messing	80.ST.401.04
2	Buitenbus	Staal	93.ST.421.03
1	Hendel	Staal	80.ST.401.02
Pos. nr.	Beschrijving	Type/Mat.	Art. nr.
8	Lubrication nipple	1/8 G Brass	
7	Selflocking nut	M16 SS-304 DIN 985-8	
6	Washer	M24 SS-316	
5	Washer	16.3 SS-316	
4	Shaft	SS-316	93.SS.421.05
3	Bearing bush	Brass	80.ST.401.04
2	Outside bush	Steel	93.ST.421.03
1	Handle	Steel	80.ST.401.02
Pos. nr.	Description	Type/Mat.	Art. nr.
8	Schmiernippel	1/8 G Messing	
7	Selbstschliessende Mutter	M16 SS-304 DIN 985-8	
6	Federring	M24 SS-316	
5	Federring	16.3 SS-316	
4	Achse	SS-316	93.SS.421.05
3	Lagerbuchse	Messing	80.ST.401.04
2	Aussenbuchse	Stahl	93.ST.421.03
1	Hebel	Stahl	80.ST.401.02
Pos. Nr.	Beschreibung	Typ/Mat.	Art. Nr.
8	Nipple de graissage	1/8 G Laiton	
7	Boulon indessarrable	M16 SS-304 DIN 985-8	
6	Rondelle élastique bombée	M24 SS-316	
5	Rondelle élastique bombée	16.3 SS-316	
4	Axe	SS-316	93.SS.421.05
3	Coussinet	Laiton	80.ST.401.04
2	Boîtier extérieur	Acier	93.ST.421.03
1	Poignée	Acier	80.ST.401.02
Pos. nr.	Description	Type/Mat.	Art. nr.

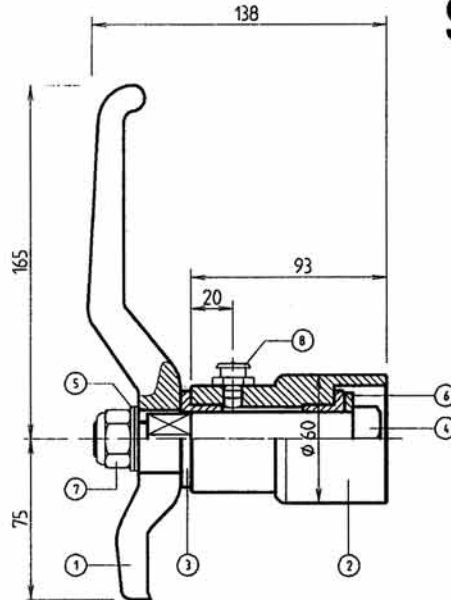
# DOORTOGGLE

Nominal size: 93 mm  
 Performance: Staal/Aluminium  
 Steel/Aluminium  
 Stahl/Aluminium  
 Acier/Aluminium  
 Weight: 1,5 kg

DIN 83104 modified

Part No.

**93.AL.422.00**



8	Smeernippel	1/8 G Messing	
7	Zelfborgende moer	M16 SS-304 DIN 985-8	
6	Sluistring	M24 SS-316	
5	Sluistring	16.3 SS-316	
4	As	SS-316	93.SS.421.05
3	Lagerbus	Nylon	80.AL.403.04
2	Buitenbus	Aluminium	93.AL.422.03
1	Hendel	Staal	80.ST.401.02
Pos. nr.	Beschrijving	Type/Mat.	Art. nr.

8	Lubrication nipple	1/8 G Brass	
7	Selflocking nut	M16 SS-304 DIN 985-8	
6	Washer	M24 SS-316	
5	Washer	16.3 SS-316	
4	Shaft	SS-316	93.SS.421.05
3	Bearing bush	Nylon	80.SL.403.04
2	Outside bush	Aluminium	93.AL.422.03
1	Handle	Steel	80.ST.401.02
Pos. nr.	Description	Type/Mat.	Art. nr.

8	Schmiernippel	1/8 G Messing	
7	Selbstschliessende Mutter	M16 SS-304 DIN 985-8	
6	Federring	M24 SS-316	
5	Federring	16.3 SS-316	
4	Achse	SS-316	93.SS.421.05
3	Lagerbuchse	Nylon	80.AL.403.04
2	Aussenbuchse	Aluminium	93.AL.422.03
1	Hebel	Stahl	80.ST.401.02
Pos. Nr.	Beschreibung	Typ/Mat.	Art. Nr.

8	Nipple de graissage	1/8 G Laiton	
7	Boulon indessarrable	M16 SS-304 DIN 985-8	
6	Rondelle élastique bombée	M24 SS-316	
5	Rondelle élastique bombée	16.3 SS-316	
4	Axe	SS-316	93.SS.421.05
3	Coussinet	Nylon	80.AL.403.04
2	Boîtier extérieur	Aluminium	93.AL.422.03
1	Poignée	Acier	80.ST.401.02
Pos. nr.	Description	Type/Mat.	Art. nr.

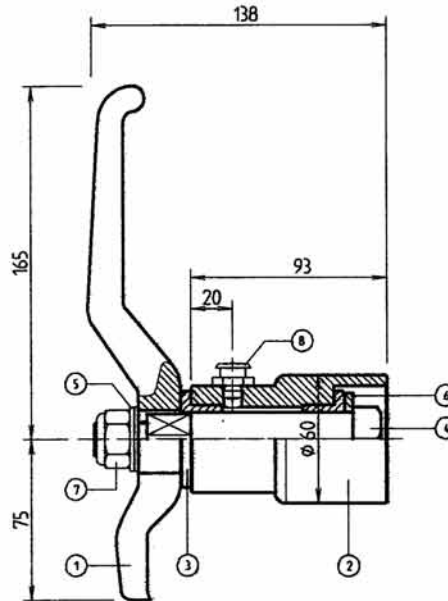
# DOORTOGGLE

Nominal size: 93 mm  
 Performance: Roestvrij staal/Roestvrij staal  
 Stainless steel/Stainless steel  
 Rostfreier Stahl/Rostfreier Stahl  
 Acier inoxydable/Acier inoxydable  
 Weight: 1,6 kg

Part No.

**93.SS.423.00**

DIN 83104 modified



8	Smeernippel	1/8 G Messing	
7	Zelfborgende moer	M16 SS-304 DIN 985-8	
6	Sluistring	M24 SS-316	
5	Sluistring	16.3 SS-316	
4	As	SS-316	93.SS.421.05
3	Lagerbus	Messing	80.ST.401.04
2	Buitenbus	Roestvrij staal	93.SS.423.03
1	Hendel	Roestvrij staal	80.SS.405.02
Pos. nr.	Beschrijving	Type/Mat.	Art. nr.
8	Lubrication nipple	1/8 G Brass	
7	Selflocking nut	M16 SS-304 DIN 985-8	
6	Washer	M24 SS-316	
5	Washer	16.3 SS-316	
4	Shaft	SS-316	93.SS.421.05
3	Bearing bush	Brass	80.ST.401.04
2	Outside bush	Stainless steel	93.SS.423.03
1	Handle	Stainless steel	80.SS.405.02
Pos. nr.	Description	Type/Mat.	Art. nr.
8	Schmiernippel	1/8 G Messing	
7	Selbstschliessende Mutter	M16 SS-304 DIN 985-8	
6	Federring	M24 SS-316	
5	Federring	16.3 SS-316	
4	Achse	SS-316	93.SS.421.05
3	Lagerbuchse	Messing	80.ST.401.04
2	Aussenbuchse	Rostfreier Stahl	93.SS.423.03
1	Hebel	Rostfreier Stahl	80.SS.405.02
Pos. Nr.	Beschreibung	Typ/Mat.	Art. Nr.
8	Nipple de graissage	1/8 G Laiton	
7	Boulon indessarrable	M16 SS-304 DIN 985-8	
6	Rondelle élastique bombée	M24 SS-316	
5	Rondelle élastique bombée	16.3 SS-316	
4	Axe	SS-316	93.SS.421.05
3	Coussinet	Laiton	80.ST.401.04
2	Boîtier extérieur	Acier inoxydable	93.SS.423.03
1	Poignée	Acier inoxydable	80.SS.405.02
Pos. nr.	Description	Type/Mat.	Art. nr.

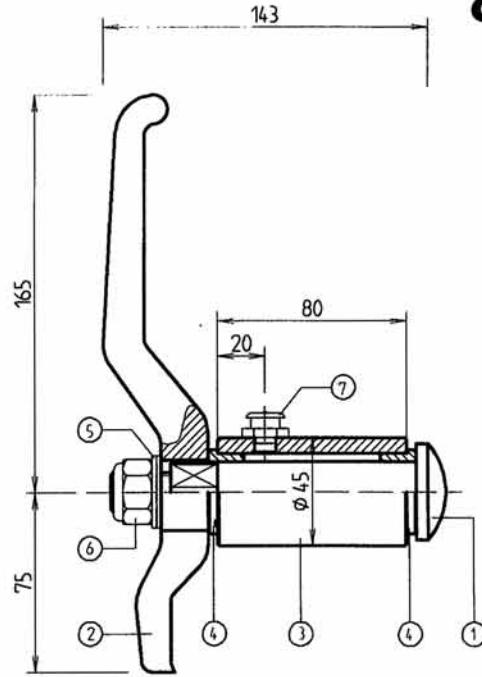
# DOORTOGGLE

Nominal size: 80 mm  
 Performance: Staal/Staal  
 Steel/Steel  
 Stahl/Stahl  
 Acier/Acier  
 Weight: 1,6 kg

DIN 83104 modified

Part No.

**80.ST.424.00**



7	Smeernippel	1/8 G Messing	
6	Zelfborgende moer	M16 st DIN 985-8	
5	Sluitring	16.3 2%	
4	Lagerbus	Messing	80.ST.401.04
3	Buitenbus	Staal	80.ST.401.03
2	Hendel	Staal	80.ST.401.02
1	As	Staal	80.ST.424.05
Pos. nr.	Beschrijving	Type/Mat.	Art. nr.
7	Lubrication nipple	1/8 G Brass	
6	Selflocking nut	M16 st DIN 985-8	
5	Washer	M16.3 2%	
4	Bearing bush	Brass	80.ST.401.04
3	Outside bush	Steel	80.ST.401.03
2	Handle	Steel	80.ST.401.02
1	Shaft	Steel	80.ST.424.05
Pos. nr.	Description	Type/Mat.	Art. nr.
7	Schmiernippel	1/8 G Messing	
6	Selbstschliessende Mutter	M16 st DIN 985-8	
5	Federring	16.3 2%	
4	Lagerbuchse	Messing	80.ST.401.04
3	Aussenbuchse	Stahl	80.ST.401.03
2	Hebel	Stahl	80.ST.401.02
1	Achse	Stahl	80.ST.424.05
Pos. Nr.	Beschreibung	Typ/Mat.	Art. Nr.
7	Nipple de graissage	1/8 G Laiton	
6	Boulon indessarrable	M16 st DIN 985-8	
5	Rondelle élastique bombée	16.3 2%	
4	Coussinet	Laiton	80.ST.401.04
3	Boîtier extérieur	Acier	80.ST.401.03
2	Poignée	Acier	80.ST.401.02
1	Axe	Acier	80.ST.424.05
Pos. nr.	Description	Type/Mat.	Art. nr.

# DOORTOGGLE

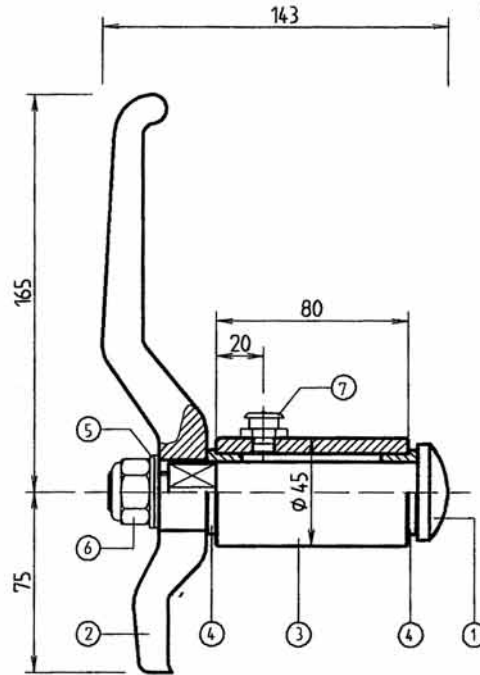
Nominal size: 80 mm  
 Performance: Staal/Aluminium  
 Steel/Aluminium  
 Stahl/Aluminium  
 Acier/Aluminium

Weight: 1,5 kg

DIN 83104 modified

Part No.

**80.AL.425.00**



7	Smeernippel	1/8 G Messing	
6	Zelfborgende moer	M16 st DIN 985-8	
5	Sluistring	16.3 2%	
4	Lagerbus	Nylon	80.AL.403.04
3	Buitenbus	ALuminium	80.AL.403.03
2	Handel	Staal	80.ST.401.02
1	As	Staal	80.ST.424.05
Pos. nr.	Beschrijving	Type/Mat.	Art. nr.
7	Lubrication nipple	1/8 G Brass	
6	Selflocking nut	M16 st DIN 985-8	
5	Washer	16.3 2%	
4	Bearing bush	Nylon	80.AL.403.04
3	Outside bush	Aluminium	80.AL.403.03
2	Handle	Steel	80.ST.401.02
1	Shaft	Steel	80.ST.424.05
Pos. nr.	Description	Type/Mat.	Art. nr.
7	Schmiernippel	1/8 G Messing	
6	Selbstschliessende Mutter	M16 st DIN 985-8	
5	Federring	16.3 2%	
4	Lagerbuchse	Nylon	80.AL.403.04
3	Aussenbuchse	Aluminium	80.AL.403.03
2	Hebel	Stahl	80.ST.401.02
1	Achse	Stahl	80.ST.424.05
Pos. Nr.	Beschreibung	Typ/Mat.	Art. Nr.
7	Nipple de graissage	1/8 G Laiton	
6	Boulon indessarrable	M16 st DIN 985-8	
5	Rondelle élastique bombée	16.3 2%	
4	Coussinet	Nylon	80.AL.403.04
3	Boîtier extérieur	Aluminium	80.AL.403.03
2	Poignée	Acier	80.ST.401.02
1	Axe	Acier	80.ST.424.05
Pos. nr.	Description	Type/Mat.	Art. nr.

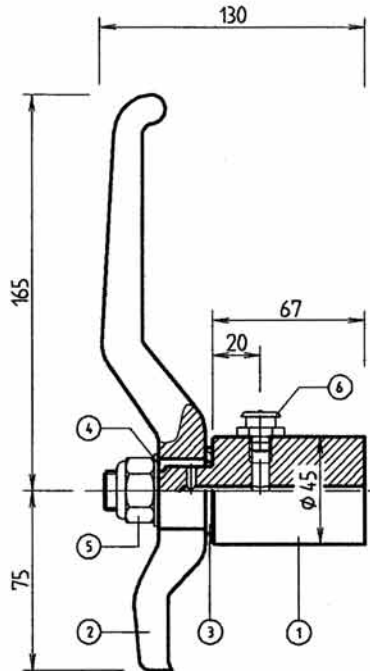
# DOORTOGGLE

Nominal size: 67 mm  
 Performance: Staal/Staal  
 Steel/Steel  
 Stahl/Stahl  
 Acier/Acier  
 Weight: 1,5 kg

DIN 83104 modified

Part No.

**67.ST.426.00**



6	Smeernippel	1/8 G Messing	
5	Zelfborgende moer	M16 st DIN 985-8	
4	Sluitring	M16 st	
3	Sluitring	M20 Messing	
2	Hendel	Staal	80.ST.401.02
1	As	Staal	67.ST.426.05
Pos. nr.	Beschrijving	Type/Mat.	Art. nr.
6	Lubrication nipple	1/8 G Brass	
5	Selflocking nut	M16 st DIN 985-8	
4	Washer	M16 st	
3	Washer	M20 Brass	
2	Handle	Steel	80.ST.401.02
1	Shaft	Steel	67.ST.426.05
Pos. nr.	Description	Type/Mat.	Art. nr.
6	Schmiernippel	1/8 G Messing	
5	Selbstschliessende Mutter	M16 st DIN 985-8	
4	Federring	M16 st	
3	Federring	M20 Messing	
2	Hebel	Stahl	80.ST.401.02
1	Achse	Stahl	67.ST.426.05
Pos. Nr.	Beschreibung	Typ/Mat.	Art. Nr.
6	Nipple de graissage	1/8 G Laiton	
5	Boulon indessarrable	M16 st DIN 985-8	
4	Rondelle élastique bombée	M16 st	
3	Rondelle élastique bombée	M20 Laiton	
2	Poignée	Acier	80.ST.401.02
1	Axe	Acier	67.ST.426.05
Pos. nr.	Description	Type/Mat.	Art. nr.

# DOORTOGGLE

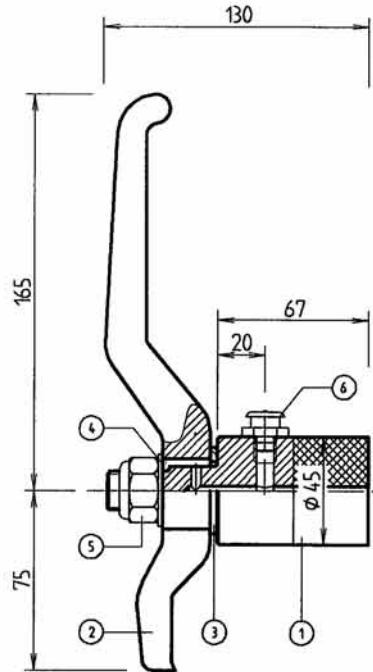
Nominal size: 67 mm  
 Performance: Staal/Aluminium  
 Steel/Aluminium  
 Stahl/Aluminium  
 Acier/Aluminium

Weight: 1,5 kg

DIN 83104modified

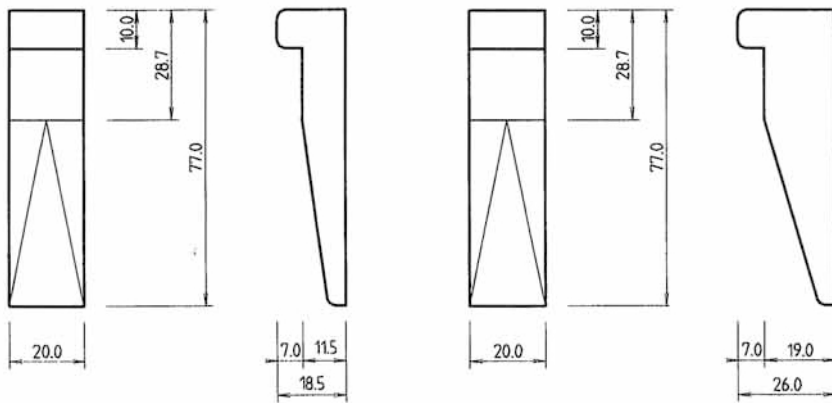
Part No.

**67.AL.427.00**



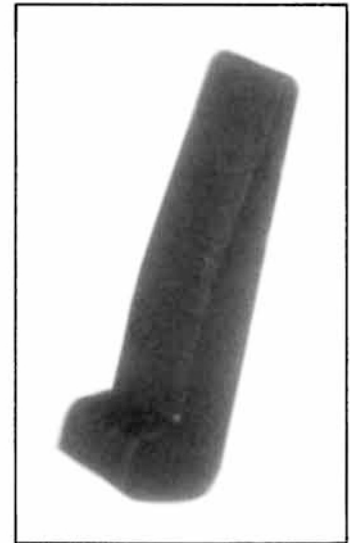
6	Smeernippel	1/8 G Messing	
5	Zelfborgende moer	M16 st DIN 985-8	
4	Sluiring	M16 st	
3	Sluiring	M20 Messing	
2	Hendel	staal	80.ST.401.02
1	As	Aluminium/Staal	67.ST.427.05
Pos. nr.	Beschrijving	Type/Mat.	Art. nr.
6	Lubrication nipple	1/8 G Brass	
5	Selflocking nut	M16 st DIN 985-8	
4	Washer	M16 st	
3	Washer	M20 Brass	
2	Handle	Steel	80.ST.401.02
1	Shaft	Aluminium/Steel	67.ST.427.05
Pos. nr.	Description	Type/Mat.	Art. nr.
6	Schmiernippel	1/8 G Messing	
5	Selbstschliessende Mutter	M16 st DIN 985-8	
4	Federring	M16 st	
3	Federring	M20 Messing	
2	Hebel	Stahl	80.ST.401.02
1	Achse	Aluminium/Stahl	67.ST.427.05
Pos. Nr.	Beschreibung	Typ/Mat.	Art. Nr.
6	Nipple de graissage	1/8 G Laiton	
5	Boulon indessarrable	M16 st DIN 985-8	
4	Rondelle élastique bombée	M16 st	
3	Rondelle élastique bombée	M20 Laiton	
2	Poignée	Acier	80.ST.401.02
1	Axe	Aluminium/Acier	67.ST.427.05
Pos. nr.	Description	Type/Mat.	Art. nr.

Spieën  
 Wedges  
 Keil  
 Cales



A/C

B/D/E



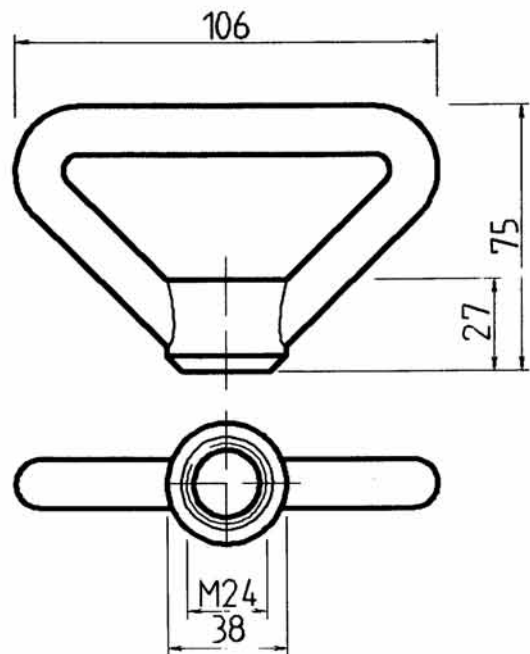
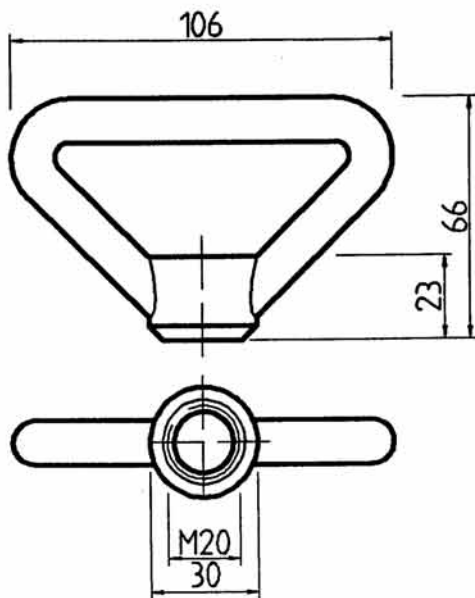
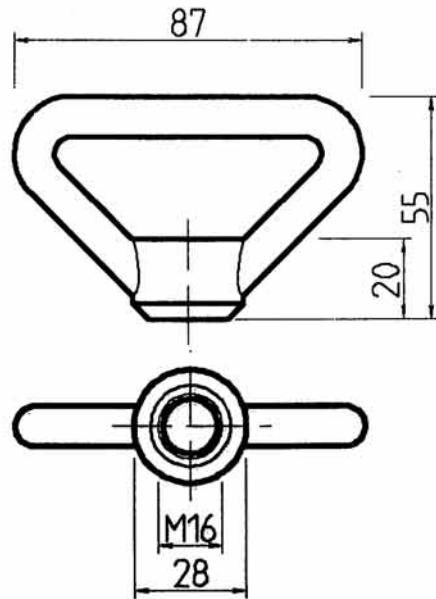
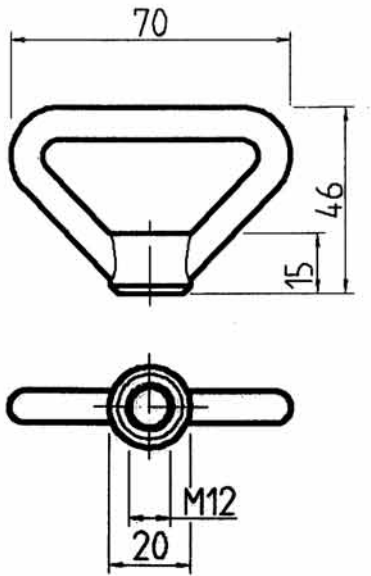
Art. nr	Type	Mat.
80.ST.411.01	A	ST44.2
80.ST.411.02	B	ST44.2
80.SS.411.03	C	AISI 316
80.AL.411.05	E	Aluminium (Triclad)



# TOGGLE

Korfmoer  
Korbmutter  
Ecrou en anse de panier

Roestvrij staal  
Rostfreier stahl  
Acier inoxydable



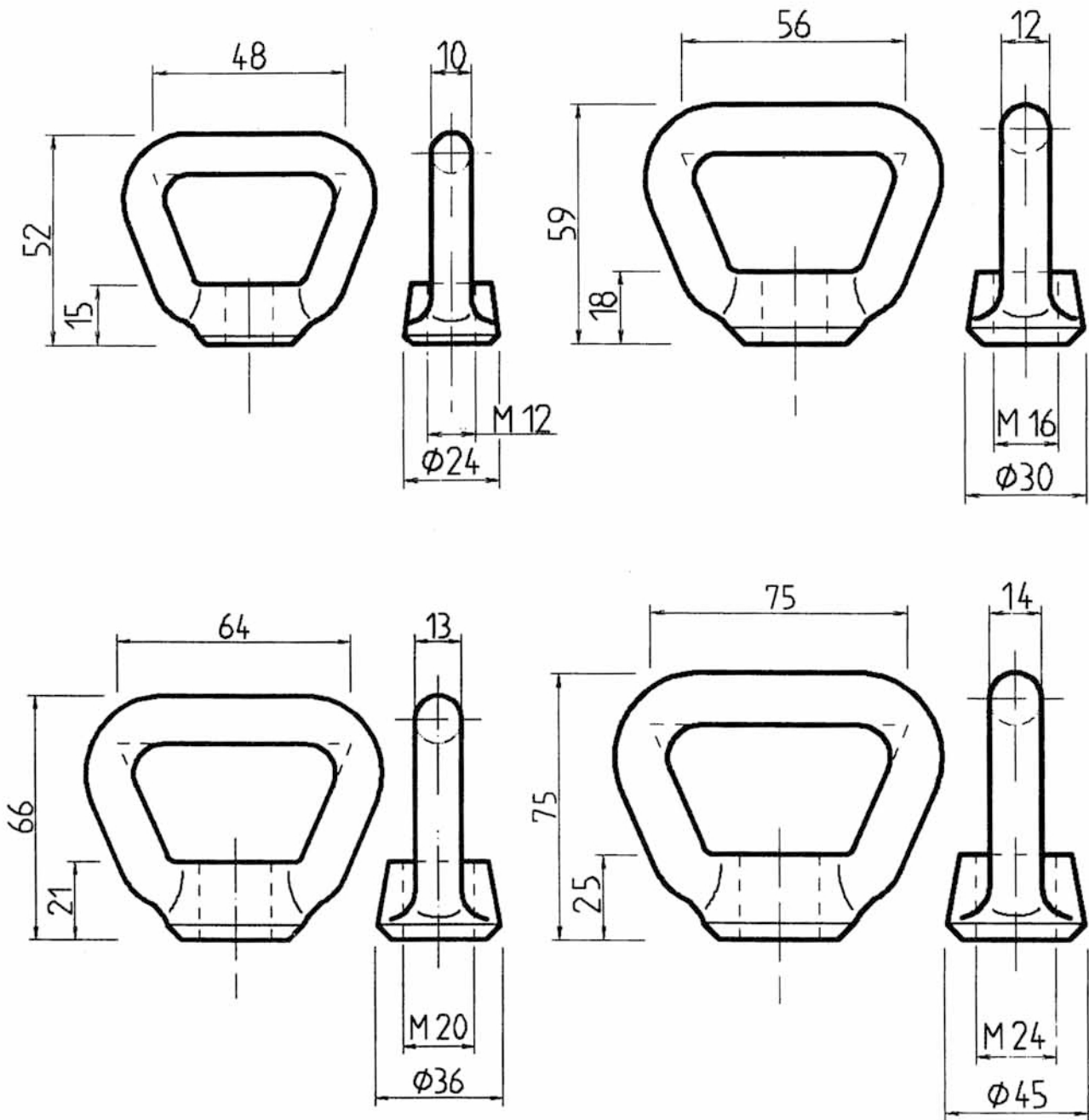
Part nr.	Material	Type
10.SS.201.00	Stainless steel AISI 316	M10 Toggle
12.SS.202.00	Stainless steel AISI 316	M12 Toggle
16.SS.203.00	Stainless steel AISI 316	M16 Toggle
20.SS.204.00	Stainless steel AISI 316	M20 Toggle

AISI 316 is equal to Werkstoff nr. 1.4408

# TOGGLE

Korfmoer  
Korbmutter  
Erou en anse de panier

Messing  
Messing  
Laiton



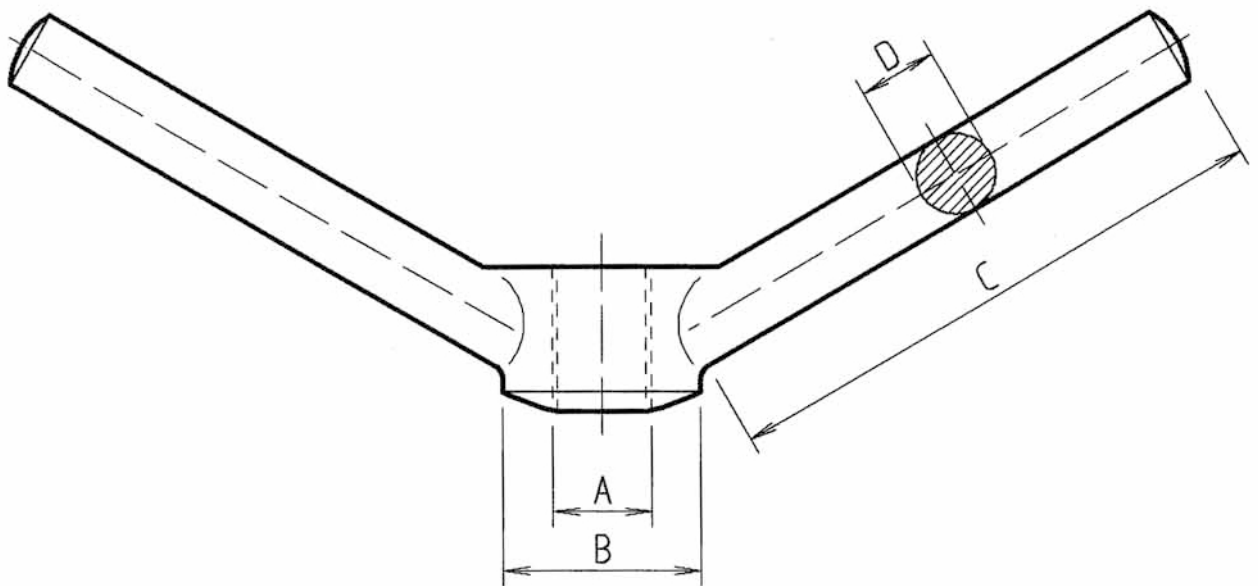
Part nr.	Material	Type
10.BR.211.00	Brass	M 10 Toggle
12.BR.212.00	Brass	M 12 Toggle
16.BR.213.00	Brass	M 16 Toggle
20.BR.214.00	Brass	M 20 Toggle

Brass in accordance with DIN 17.673 Blatt 1.  
Dimensions in accordance with DIN 80.704. Material: Cu Zu 40Pb2.

# BUTTERFLY TOGGLE

Knevelmoer  
Knebelmutter  
Ecrou à ailettes

Roestvrij staal/Messing  
Rostfreier stahl/Messing  
Acier inoxydable/Laiton



Part nr.	A	B	C	D	Material
10.SS.220.01	M10	22mm	43mm	10mm	Stainless steel
12.SS.220.02	M12	30mm	58mm	14mm	Stainless steel
16.SS.220.03	M16	32mm	64mm	14mm	Stainless steel
20.SS.220.04	M20	36mm	70mm	15mm	Stainless steel
24.SS.220.05	M24	40mm	76mm	16mm	Stainless steel
10.BR.220.01	M10	25mm	53mm	10mm	Brass
12.BR.220.12	M12	30mm	58mm	14mm	Brass
16.BR.220.13	M16	32mm	64mm	14mm	Brass
20.BR.220.14	M20	36mm	70mm	15mm	Brass
24.BR.220.15	M24	40mm	76mm	16mm	Brass

AISI 316 is equal to Werkstoff nr. 1.4408

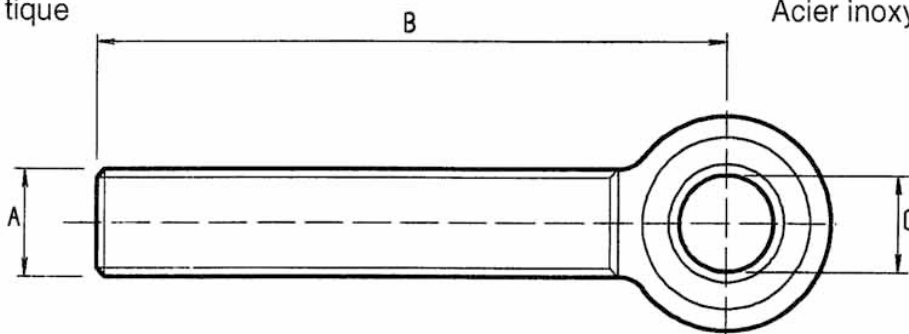
Brass in accordance with DIN 17.673 Blatt 1.

Dimensions in accordance with DIN 80.704. Material: Cu Zu 40Pb2.

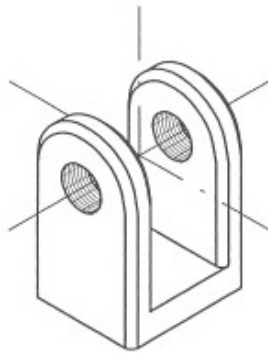
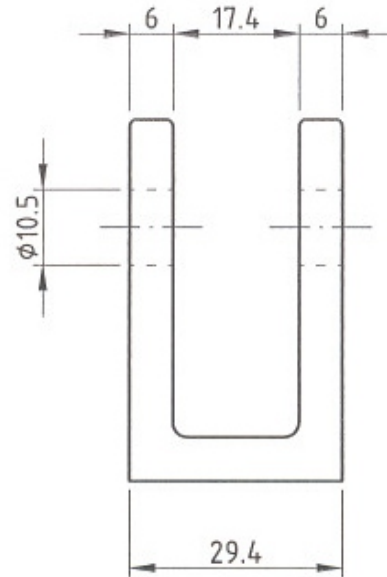
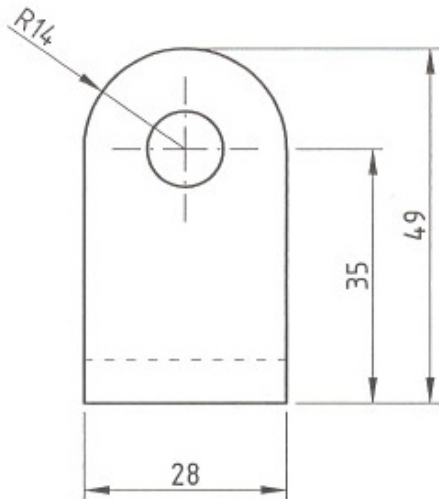
# EYE BOLT - FISHERY EYE BOLT

Oogbout  
Augenbolzen  
Piton à tique

Roestvrij staal/Messing  
Rostfreier stahl/Messing  
Acier inoxydable/Laiton



Part nr.	A x B		C	Material
12.SS.310.20	M12	x 100mm	12mm	Stainless steel
16.SS.310.21	M16	x 80mm	18mm	Stainless steel
16.SS.310.22	M16	x 120mm	16mm	Stainless steel
16.SS.310.23	M16	x 120mm	18mm	Stainless steel
20.SS.310.25	M20	x 80mm	18mm	Stainless steel
20.SS.310.27	M20	x 130mm	18mm	Stainless steel
24.SS.310.29	M24	x 180mm	20mm	Stainless steel
12.BR.310.10	M12	x 100mm	12mm	Brass
16.BR.310.11	M16	x 80mm	18mm	Brass
16.BR.310.12	M16	x 120mm	16mm	Brass
16.BR.310.13	M16	x 120mm	18mm	Brass
20.BR.310.15	M20	x 80mm	18mm	Brass
20.BR.310.17	M20	x 130mm	18mm	Brass
24.BR.310.18	M24	x 130mm	20mm	Brass



### PART DATA

PART NO.	12.SS.315.02
NUMBER PER COMPONENT	-
MATERIAL	STAINLESS STEEL 316 St.St. 316Ti
WEIGHT	0.140 KG
BELONGING TO DRAWING	-
REMARK	-

Subject: FIXATION BRACKET M12 12.SS.315.02

Drawingnumber:

Component: FIXATION BRACKET stainless steel

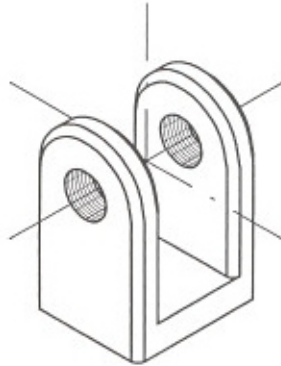
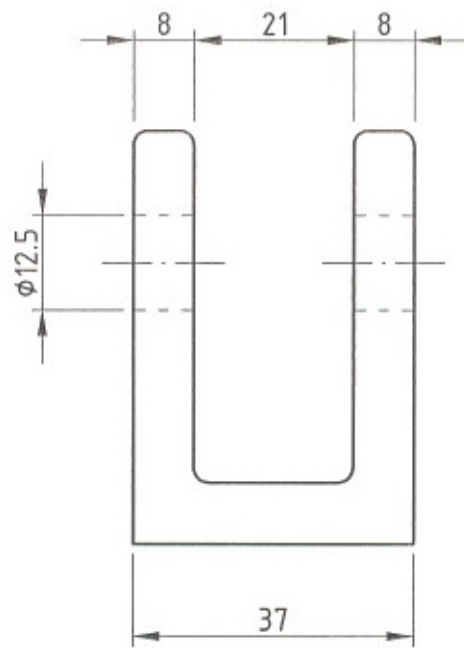
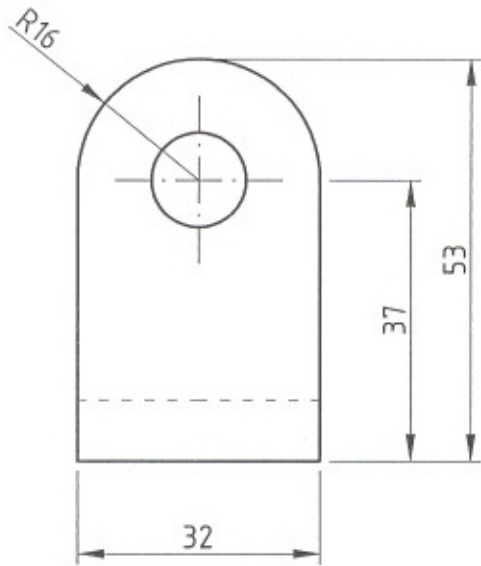
315.02

**THOR**MARINE

Date : 22-2-'99

Drawn : BCS

Scale : 1:1



### PART DATA

PART NO.	16.SS.315.03
NUMBER PER COMPONENT	-
MATERIAL	STAINLESS STEEL 316 St.St. 316Ti
WEIGHT	0.250 KG
BELONGING TO DRAWING	-
REMARK	-

Subject: FIXATION BRACKET M16 16.SS.315.03

Component: FIXATION BRACKET stainless steel

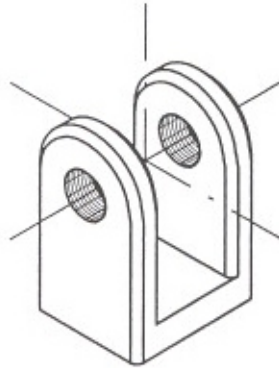
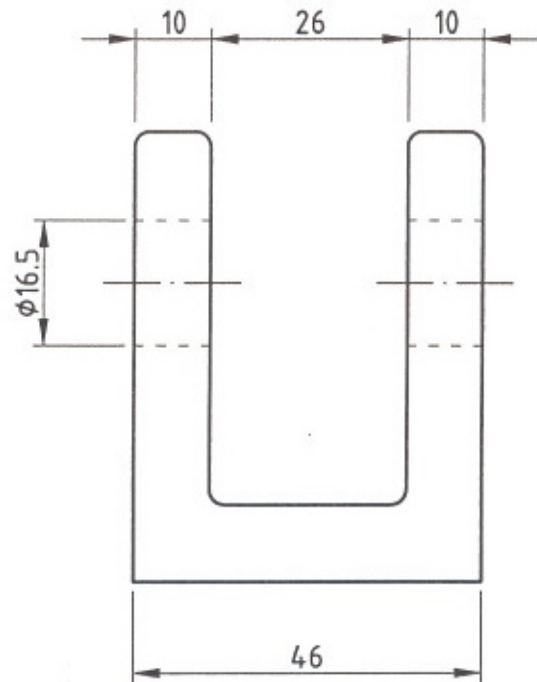
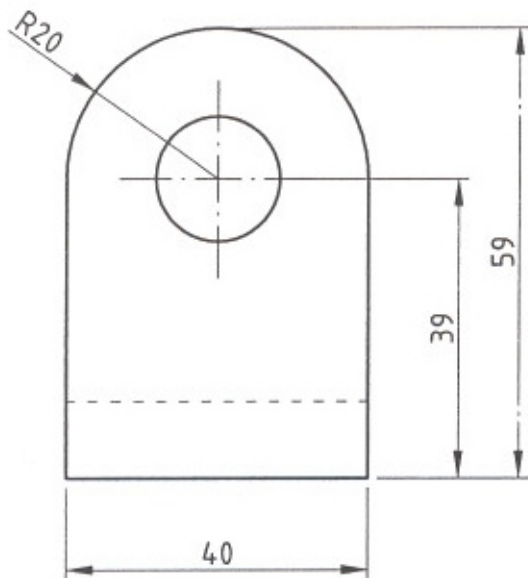
Drawingnumber:  
**315.03**

**THORMARINE**

Date : 22-2-'99

Drawn : BCS

Scale : 1:1



### PART DATA

PART NO.	20.SS.315.04
NUMBER PER COMPONENT	-
MATERIAL	STAINLESS STEEL 316 St.St. 316Ti
WEIGHT	0.384 KG
BELONGING TO DRAWING	-
REMARK	-

Subject: FIXATION BRACKET M20 20.SS.315.04

Component: FIXATION BRACKET stainless steel

Drawingnumber:

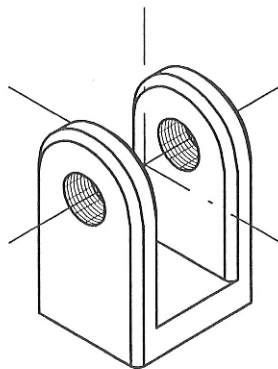
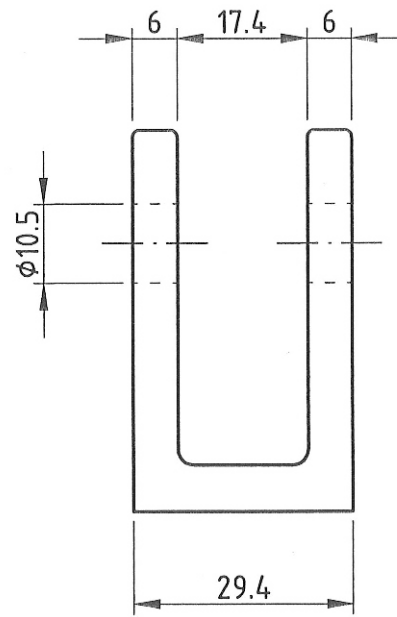
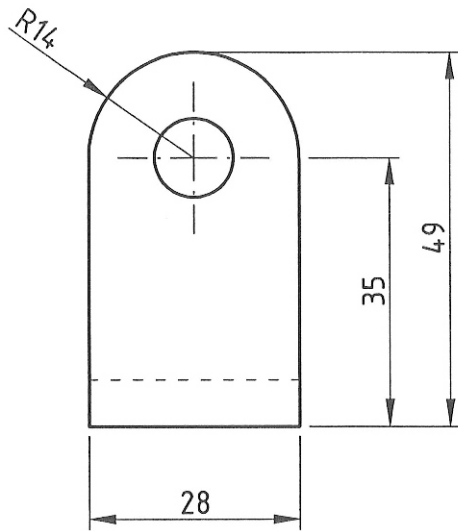
315.04

Date : 22-2-'99

Drawn: BCS

Scale : 1:1

**THOR**MARINE



PART DATA	
PART NO.	12.AL.316.02
NUMBER PER COMPONENT	-
MATERIAL	ALUMINIUM G-ALSi 10 Mg
WEIGHT	0.047 KG
BELONGING TO DRAWING	-
REMARK	Al 239A (DIN 1725)

Subject: FIXATION BRACKET M12 12.AL.316.02

Component: FIXATION BRACKET aluminium

Drawingnumber:

316.02

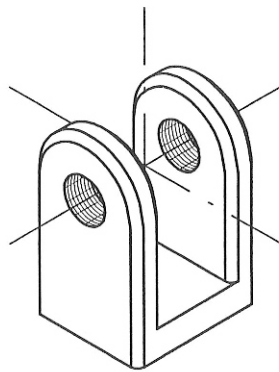
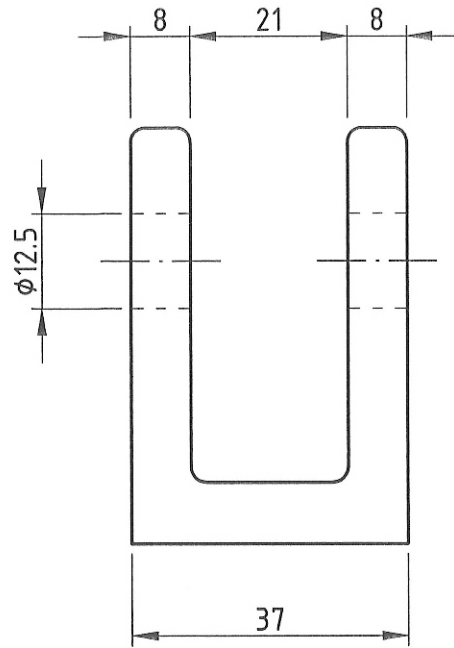
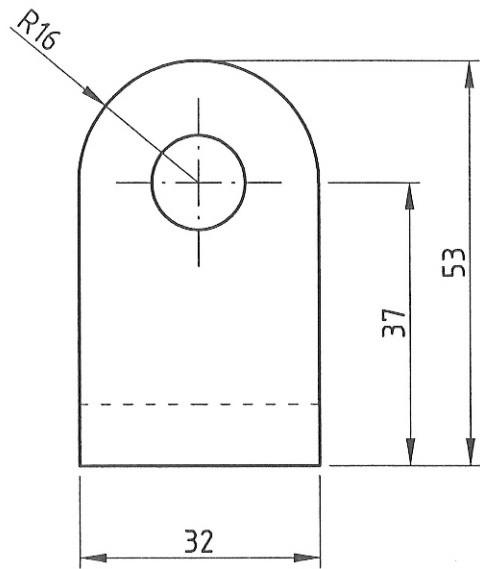
Date : 22-2-'99

Drawn : BCS

Scale : 1:1

**THORMARINE**





### PART DATA

PART NO.	16.AL.316.03
NUMBER PER COMPONENT	-
MATERIAL	ALUMINIUM G-AISI 10 Mg
WEIGHT	0.078 KG
BELONGING TO DRAWING	-
REMARK	Al 239A (DIN 1725)

Subject: FIXATION BRACKET M16 16.AL.316.03

Component: FIXATION BRACKET aluminium

Drawingnumber:

316.03

Date : 22-2-'99

Drawn : BCS

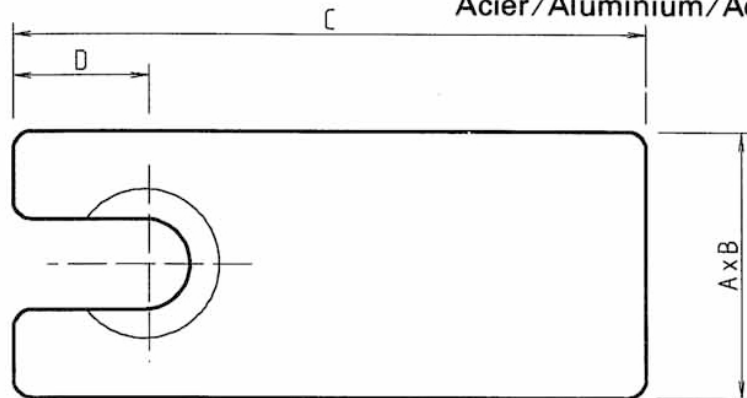
Scale : 1:1

**THOR**MARINE

# CLAMP PLATE

Knevelplaat  
Klemmplatte  
Plaque de serrage

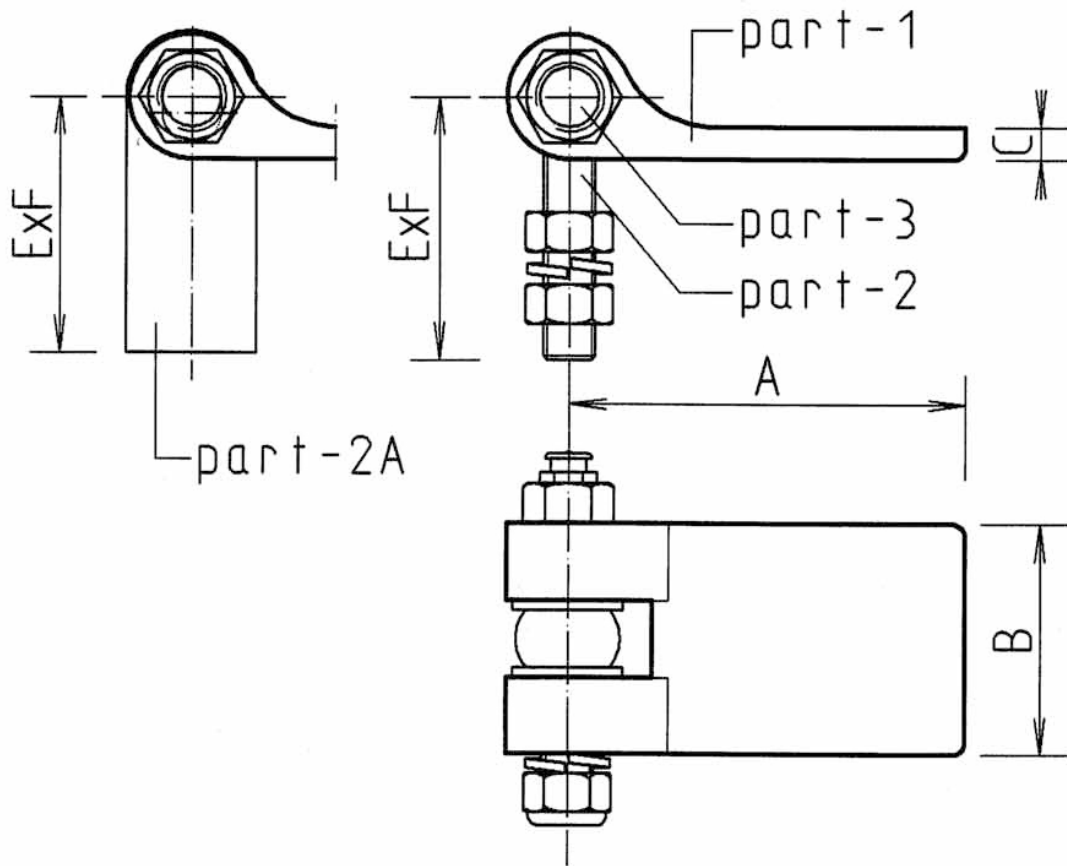
Staal/Aluminium/Roestvrij staal  
Stahl/Aluminium/Rostfreier Stahl  
Acier/Aluminium/Acier inoxydable



Part nr.	A x B	C	D	Material
12.ST.310.61 16.ST.310.62 20.ST.310.63	40 x 10mm 50 x 12mm 60 x 15mm	100mm 125mm 150mm	20mm 22mm 26mm	Steel Steel Steel
12.AL.310.66 16.AL.310.67 20.AL.310.68	40 x 10mm 50 x 12mm 60 x 15mm	100mm 125mm 150mm	20mm 22mm 26mm	Aluminium Aluminium Aluminium
12.SS.310.71 16.SS.310.72 20.SS.310.73	40 x 10mm 50 x 12mm 60 x 15mm	100mm 125mm 150mm	20mm 22mm 26mm	Stainless steel Stainless steel Stainless steel

# HEAVY DUTY STEEL WELD-ON-HINGES *FLAT TYPE*

Gesmeed scharnier  
 Forged hinge  
 Geschmiedetes Scharnier  
 Charnière forgée



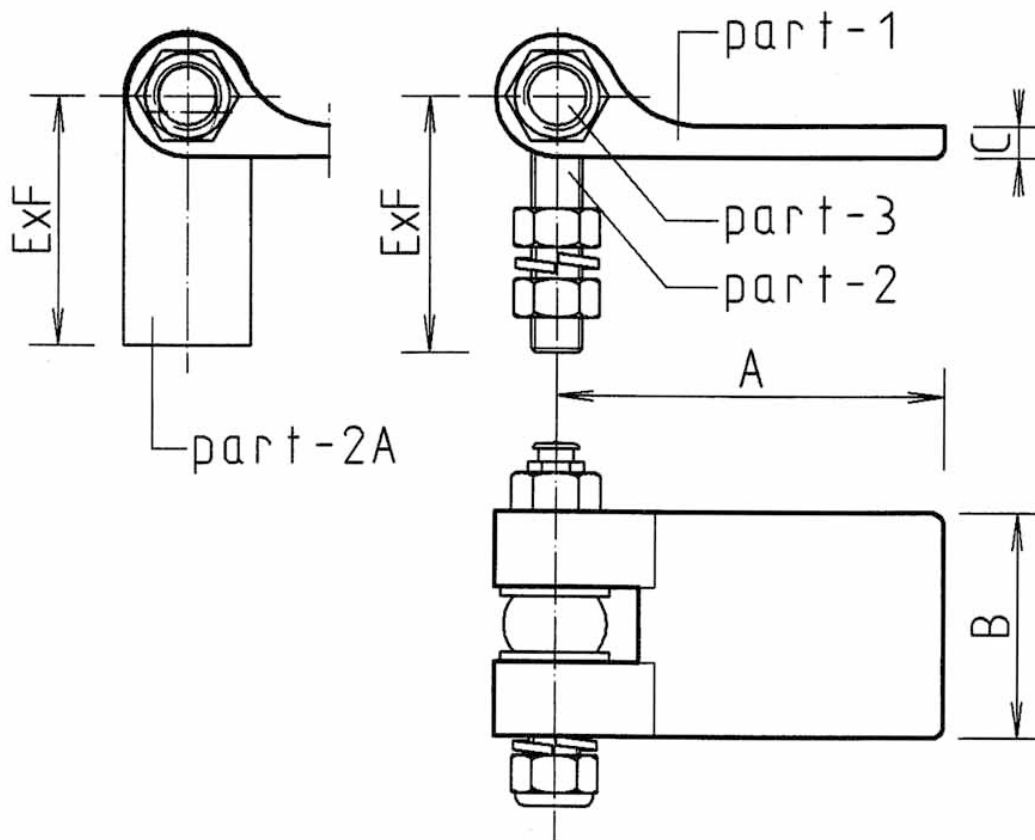
Part No.	Part - 1		Part - 2		Part - 3	
	Material	Dimensions AxBxC	Material	Dimensions ExF	Material	Type
12.ST.370.51	Steel	97 x 50x10mm	Stainless steel	M12x 100mm	Stainless steel	Boltspindle
16.ST.370.62	Steel	122 x 70x10mm	Stainless steel	M16x 80mm	Stainless steel	Boltspindle
16.ST.370.63	Steel	122 x 70x10mm	Stainless steel	M16x 120mm	Stainless steel	Boltspindle
20.ST.370.72	Steel	122 x 70x10mm	Stainless steel	M20x 80mm	Stainless steel	Boltspindle
20.ST.370.73	Steel	122 x 70x10mm	Stainless steel	M20x 130mm	Stainless steel	Boltspindle

Part No.	Part - 1		Part - 2A		Part - 3	
	Material	Dimensions AxBxC	Material	Dimensions ExF	Material	Type
20.ST.370.82	Steel	122 x 70x10mm	Steel	40x22/87x92mm	Stainless steel	Boltspindle

The doorhinges are supplied complete with 2 nuts and washers each.

# HEAVY DUTY STAINLESS STEEL WELD-ON-HINGES *FLAT TYPE*

Gesmeed scharnier  
Forged hinge  
Geschmiedetes Scharnier  
Charnière forgée



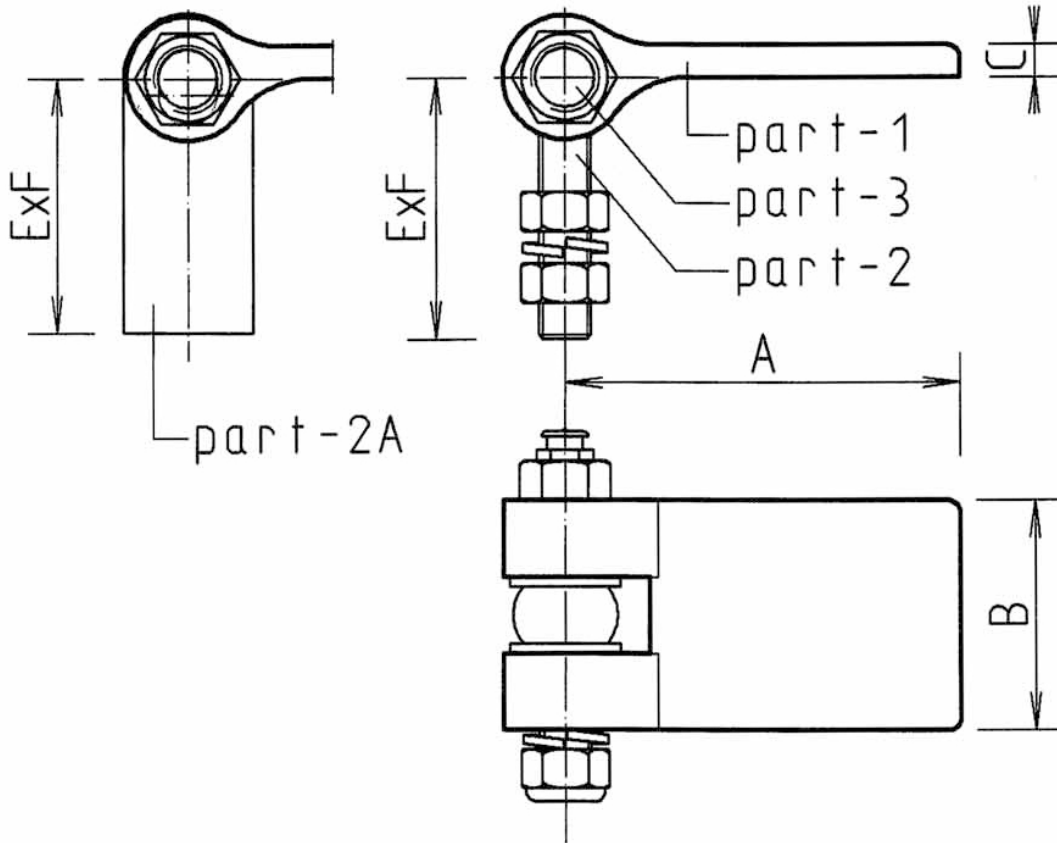
Part No.	Part - 1		Part - 2		Part - 3	
	Material	Dimensions AxBxC	Material	Dimensions ExF	Material	Type
12.SS.370.53	Stainless steel	97x50x10mm	Stainless steel	M12x100mm	Stainless steel	Boltspindle
16.SS.370.67	Stainless steel	122x70x10mm	Stainless steel	M16x80mm	Stainless steel	Boltspindle
16.SS.370.68	Stainless steel	122x70x10mm	Stainless steel	M16x120mm	Stainless steel	Boltspindle
20.SS.370.77	Stainless steel	122x70x10mm	Stainless steel	M20x80mm	Stainless steel	Boltspindle
20.SS.370.78	Stainless steel	122x70x10mm	Stainless steel	M20x130mm	Stainless steel	Boltspindle

Part No.	Part - 1		Part - 2A		Part - 3	
	Material	Dimensions AxBxC	Material	Dimensions ExF	Material	Type
20.SS.370.87	Stainless steel	122x70x10mm	Stainless steel	40x22/87x92mm	Stainless steel	Boltspindle

The doorhinges are supplied complete with 2 nuts and washers each.

# HEAVY DUTY STEEL WELD-ON-HINGES CENTER TYPE

Gesmeed scharnier  
 Forged hinge  
 Geschmiedetes Scharnier  
 Charnière forgée



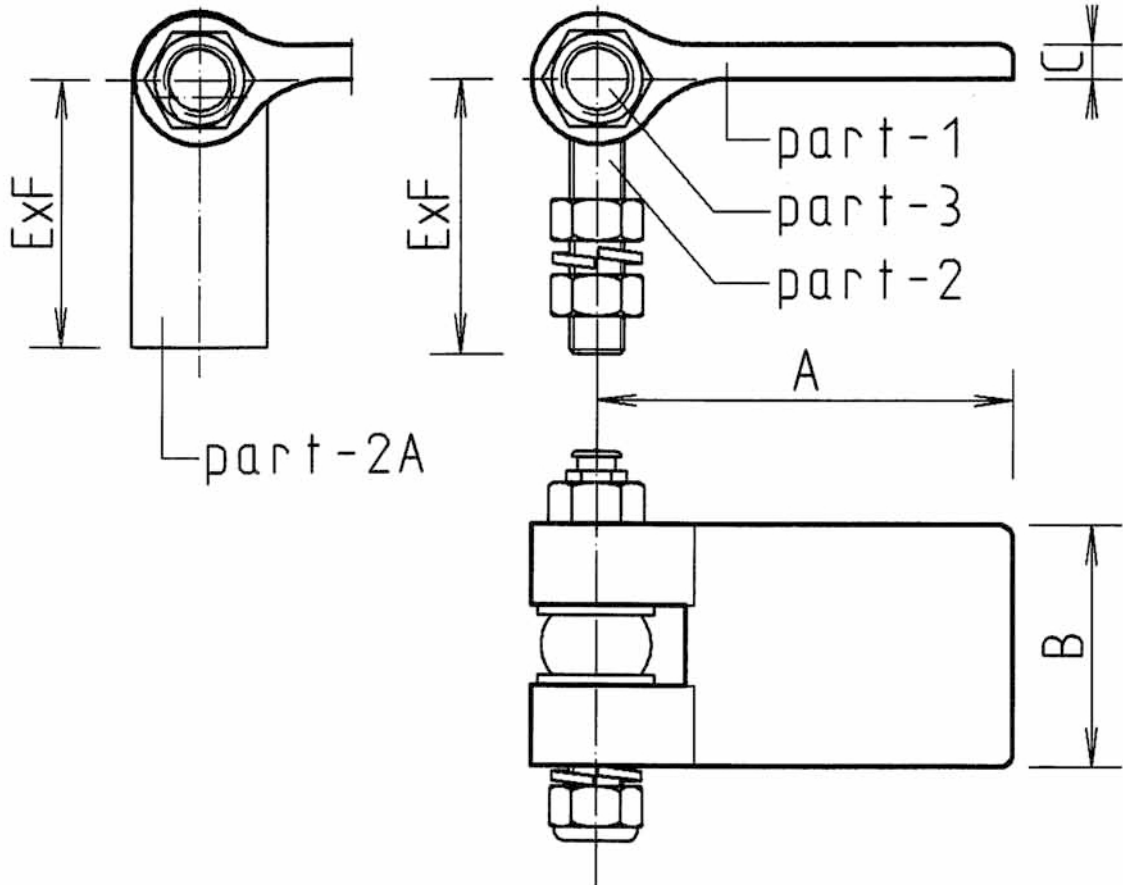
Part No.	Part - 1		Part - 2		Part - 3	
	Material	Dimensions AxBxC	Material	Dimensions ExF	Material	Type
12.ST.380.51	Steel	97x50x10mm	Stainless steel	M12x100mm	Stainless steel	Boltspindle
16.ST.380.62	Steel	122x70x10mm	Stainless steel	M16x 80mm	Stainless steel	Boltspindle
16.ST.380.63	Steel	122x70x10mm	Stainless steel	M16x120mm	Stainless steel	Boltspindle
20.ST.380.72	Steel	122x70x10mm	Stainless steel	M20x 80mm	Stainless steel	Boltspindle
20.ST.380.73	Steel	122x70x10mm	Stainless steel	M20x130mm	Stainless steel	Boltspindle

Part No.	Part - 1		Part - 2A		Part - 3	
	Material	Dimensions AxBxC	Material	Dimensions ExF	Material	Type
20.ST.380.82	Steel	122x70x10mm	Steel	40x22/78x83mm	Stainless steel	Boltspindle

The doorhinges are supplied complete with 2 nuts and washers each.

# HEAVY DUTY STAINLESS STEEL WELD-ON-HINGES CENTER TYPE

Gesmeed scharnier  
Forged hinge  
Geschmiedetes Scharnier  
Charnière forgée



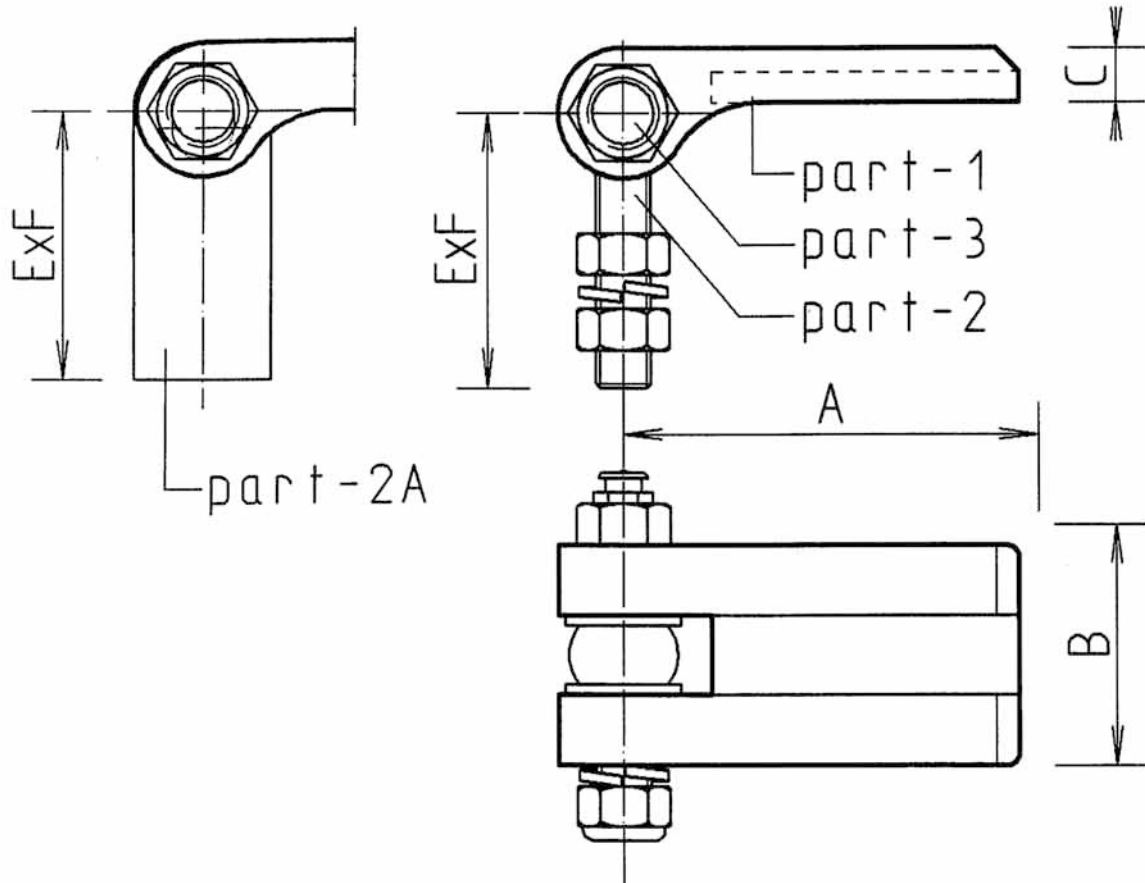
Part No.	Part - 1		Part - 2		Part - 3	
	Material	Dimensions AxBxC	Material	Dimensions ExF	Material	Type
12.SS.380.53	Stainless steel	97 x 50 x 10mm	Stainless steel	M12 x 100mm	Stainless steel	Boltspindle
16.SS.380.67	Stainless steel	122 x 70 x 10mm	Stainless steel	M16 x 80mm	Stainless steel	Boltspindle
16.SS.380.68	Stainless steel	122 x 70 x 10mm	Stainless steel	M16 x 120mm	Stainless steel	Boltspindle
20.SS.380.77	Stainless steel	122 x 70 x 10mm	Stainless steel	M20 x 80mm	Stainless steel	Boltspindle
20.SS.380.78	Stainless steel	122 x 70 x 10mm	Stainless steel	M20 x 130mm	Stainless steel	Boltspindle

Part No.	Part - 1		Part - 2A		Part - 3	
	Material	Dimensions AxBxC	Material	Dimensions ExF	Material	Type
20.SS.380.87	Stainless steel	122 x 70 x 10mm	Stainless steel	40x22/78x83mm	Stainless steel	Boltspindle

The doorhinges are supplied complete with 2 nuts and washers each.

# HEAVY DUTY ALUMINIUM WELD-ON-HINGES CENTER TYPE

Gegoten scharnier  
Cast hinge  
Guss Scharnier  
Charnière coulée



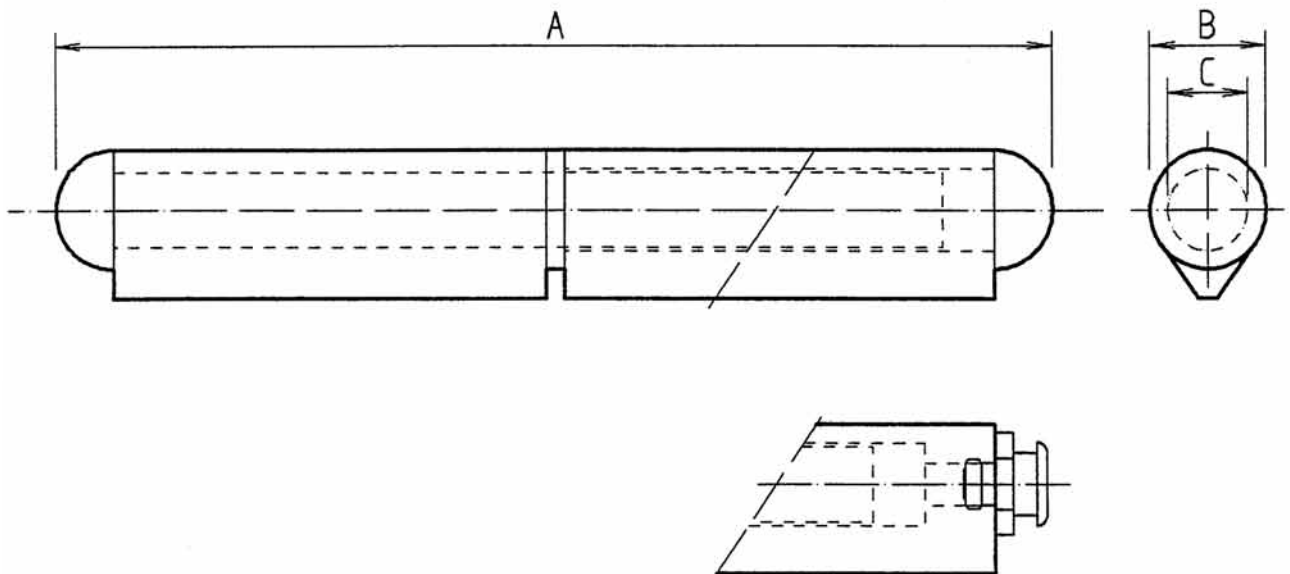
Part No.	Part - 1		Part - 2		Part - 3	
	Material	Dimensions AxBxC	Material	Dimensions ExF	Material	Type
12.AL.390.51	Aluminium	97x50x15mm	Stainless steel	M12x100mm	Stainless steel	Boltspindle
16.AL.390.62	Aluminium	120x65x18mm	Stainless steel	M16x80mm	Stainless steel	Boltspindle
16.AL.390.63	Aluminium	120x65x18mm	Stainless steel	M16x120mm	Stainless steel	Boltspindle
20.AL.390.72	Aluminium	120x65x18mm	Stainless steel	M20x80mm	Stainless steel	Boltspindle
20.AL.390.73	Aluminium	120x65x18mm	Stainless steel	M20x130mm	Stainless steel	Boltspindle

Part No.	Part - 1		Part - 2A		Part - 3	
	Material	Dimensions AxBxC	Material	Dimensions ExF	Material	Type
20.AL.390.33	Aluminium	120x65x18mm	Aluminium	40x20/78x83mm	Stainless steel	Ringspindle
20.AL.390.82	Aluminium	120x65x18mm	Steel	40x20/78x83mm	Stainless steel	Boltspindle
20.AL.390.83	Aluminium	120x65x18mm	Aluminium	40x20/78x83mm	Stainless steel	Boltspindle

The doorhinges are supplied complete with 2 nuts and washers each.

# WELD-ON LOOSE JOINT HINGES

Laspaumelles  
Joint hinge  
Stiftscharnier zum Schweißen  
Charnière à fiche à souder



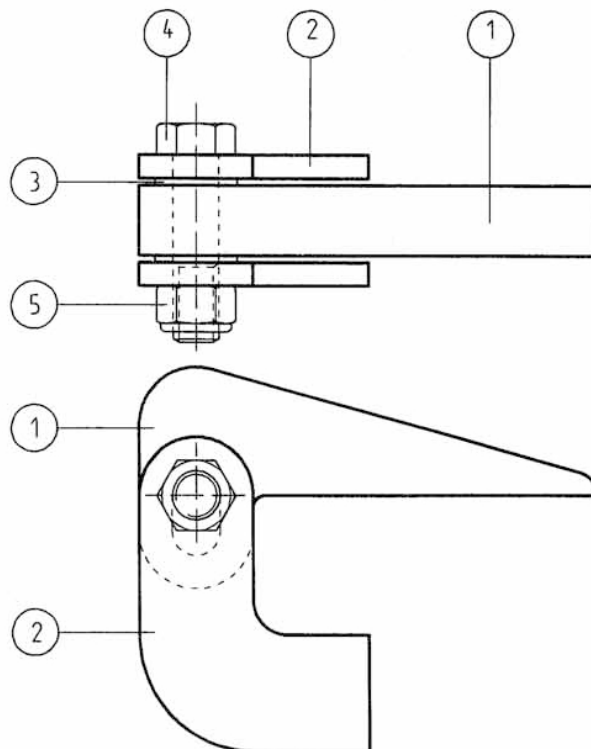
Part nr.	A	B	C	Material
60.SS.310.61	60mm	10mm	6mm	Stainless steel
80.SS.310.62	80mm	13mm	8mm	Stainless steel
10.SS.310.63	100mm	16mm	10mm	Stainless steel
12.SS.310.64	120mm	16mm	11mm	Stainless steel
15.SS.310.65	150mm	20mm	13mm	Stainless steel
15.SS.310.66 *	150mm	20mm	13mm	Stainless steel

\* = with lubrication nipple



# HEAVY-DUTY WELD-ON HATCHCOVER HINGES with elongated hole M20

Zwaar luik scharnier met sleufgat  
 Heavy-duty hatchcover hinge with elongated hole  
 Lukenscharnier für Schwerkgebrauch mit Schlitz  
 Charnière à utilisation lourde pour panneau d'écouille avec rainure



20.ST.320.00				
Pos. No.	Number	Description	Type/drw. No.	Remark
5	1	Selflocking nut	M20	ST DIN 985-8
4	1	Headbolt	M20 x 80mm	ST DIN 933-A2
3	2	Washer	M20 Brass	DIN 125-A
2	2	Inside hatchcover hinge joint M20	320.02	Steel
1	1	Outside hatchcover hinge joint M20 elongated hole	320.01	Steel

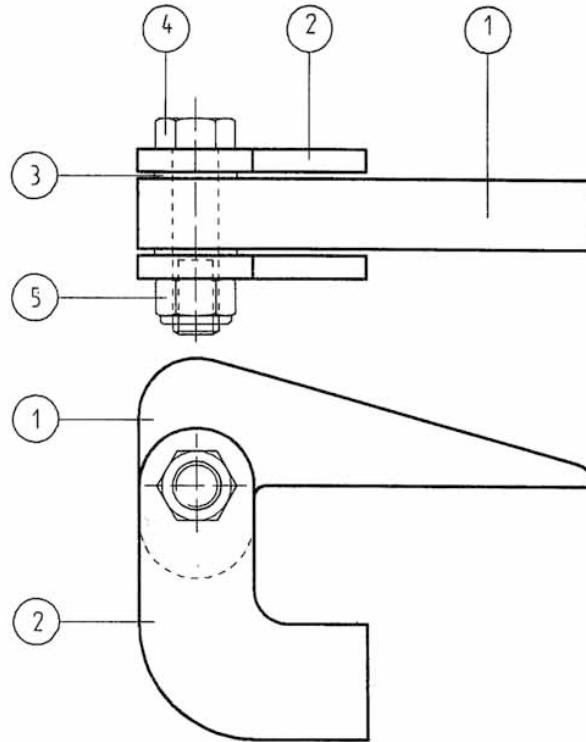
20.ST.322.00				
Pos. No.	Number	Description	Type/drw. No.	Remark
5	1	Selflocking nut	M20	ST DIN 985-8
4	1	Headbolt	M20 x 80mm	ST DIN 933-A2
3	2	Washer	M20 Stainless steel	DIN 125-A
2	2	Inside hatchcover hinge joint M20	320.02	Steel
1	1	Outside hatchcover hinge joint M20 elongated hole	320.01	Aluminium

20.AL.324.00				
Pos. No.	Number	Description	Type/drw. No.	Remark
5	1	Selflocking nut	M20	ST DIN 985-8
4	1	Headbolt	M20 x 80mm	ST DIN 933-A2
3	2	Washer	M20 Stainless steel	DIN 125-A
2	2	Inside hatchcover hinge joint M20	320.02	Aluminium
1	1	Outside hatchcover hinge joint M20 elongated hole	320.01	Aluminium

# HEAVY-DUTY WELD-ON HATCHCOVER HINGES

## M20

Zwaar luik scharnier  
 Heavy-duty hatchcover hinge  
 Lukenscharnier für Schwergebrauch  
 Charnière à utilisation lourde pour panneau d'écoutille



20.ST.321.00				
Pos. No.	Number	Description	Type/drw. No.	Remark
5	1	Selflocking nut	M20	ST DIN 985-8
4	1	Headbolt	M20 x 80mm	ST DIN 933-A2
3	2	Washer	M20 Brass	DIN 125-A
2	2	Inside hatchcover hinge joint M20	320.02	Steel
1	1	Outside hatchcover hinge joint M20	321.01	Steel

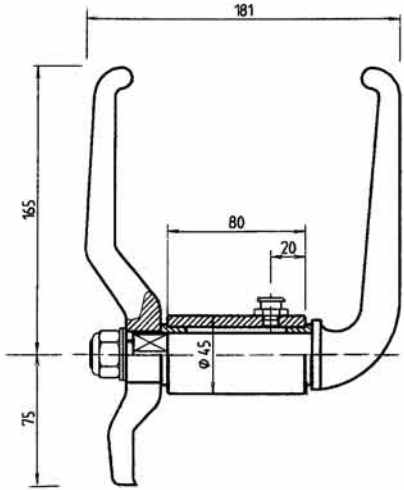
20.ST.323.00				
Pos. No.	Number	Description	Type/drw. No.	Remark
5	1	Selflocking nut	M20	ST DIN 985-8
4	1	Headbolt	M20 x 80mm	ST DIN 933-A2
3	2	Washer	M20 Stainless steel	DIN 125-A
2	2	Inside hatchcover hinge joint M20	320.02	Steel
1	1	Outside hatchcover hinge joint M20	321.01	Aluminium

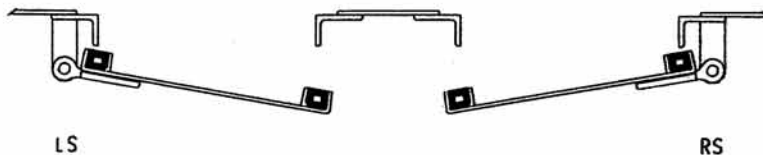
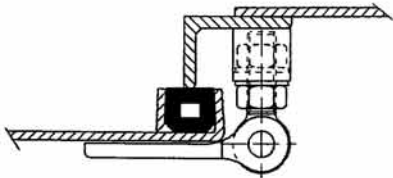
20.AL.325.00				
Pos. No.	Number	Description	Type/drw. No.	Remark
5	1	Selflocking nut	M20	ST DIN 985-8
4	1	Headbolt	M20 x 80mm	ST DIN 933-A2
3	2	Washer	M20 Stainless steel	DIN 125-A
2	2	Inside hatchcover hinge joint M20	320.02	Aluminium
1	1	Outside hatchcover hinge joint M20	321.01	Aluminium

# DOORS

**Detail doortoggle**



**Detail hinge  
rubber:  
norsorex 30° shore**



**Door  
with 1 clip  
angle bar frame with  
square corners**

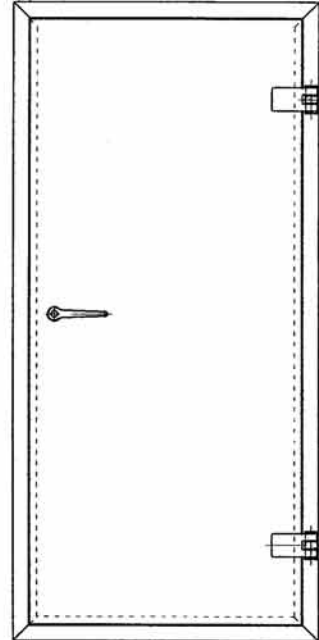
**Door  
with 2 clips  
angle bar frame with  
square corners**

Execution: steel, stainless steel or aluminium

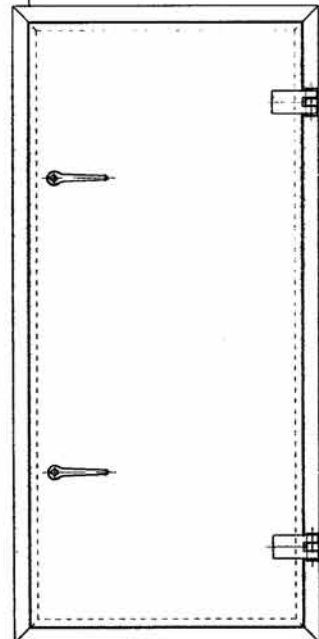
seal: standard rubber 35 x 30 mm.

sizes as per your requirements

**Deur  
met 1 knevel  
hoekstaal kozijn met  
rechte hoeken**



**Deur  
met 2 knevels  
hoekstaal kozijn met  
rechte hoeken**



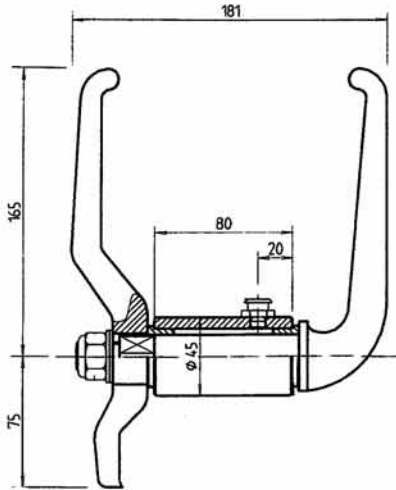
Konstruktie: staal, r.v.s. of aluminium

afdichting: standaard rubber 35 x 30 mm.

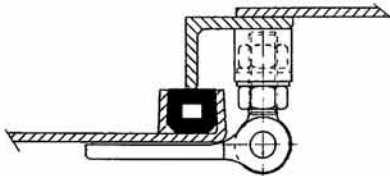
maten volgens uw specificatie

# WT DOORS

## Detail doortoggle



## Detail hinge rubber: norsorex 30° shore



**WT Door**  
*with 4 clips*  
*angle bar frame with*  
*square corners*

Execution: steel, stainless  
steel or aluminium

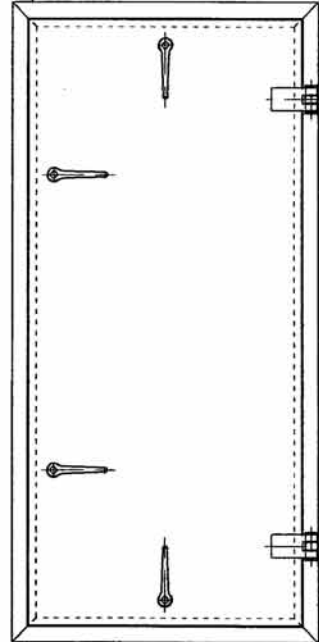
seal: standard rubber  
35 x 30 mm.

sizes as per your  
requirements



LS

**WD Deur**  
*met 4 knevels*  
*hoekstaal kozijn met*  
*rechte hoeken*



Konstruktie: staal, r.v.s. of  
aluminium

afdichting: standaard rubber  
35 x 30 mm.

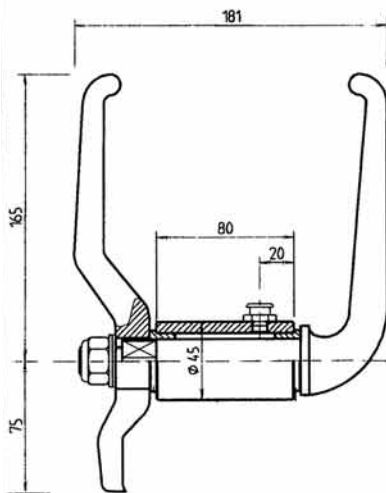
maten volgens uw  
specificatie



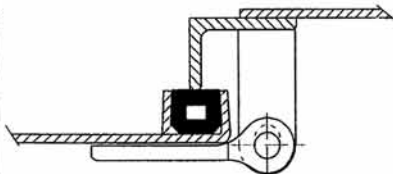
RS

# WT DOORS

**Detail doortoggle**



**Detail hinge  
rubber:  
norsorex 30<sup>0</sup> shore**



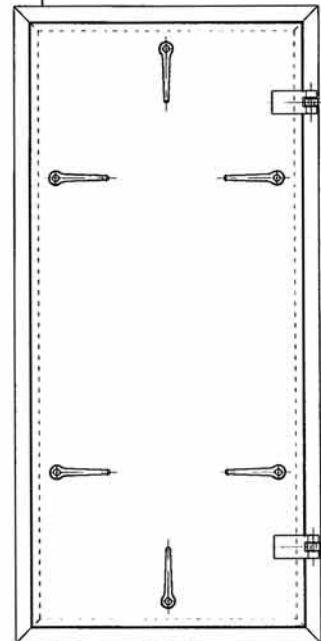
**WT Door**  
*with 6 clips*  
*angle bar frame with*  
*square corners*

Execution: steel, stainless steel or aluminium

seal: standard rubber 35 x 30 mm.

sizes as per your requirements

**WD Deur**  
*met 6 knevels*  
*hoekstaal kozijn met*  
*rechte hoeken*



Konstruktie: staal, r.v.s. of aluminium

afdichting: standaard rubber 35 x 30 mm.

maten volgens uw specificatie

