



کارت مشخصات **5**

شرح ۱۵:

کتاب: 44/10529/0022P

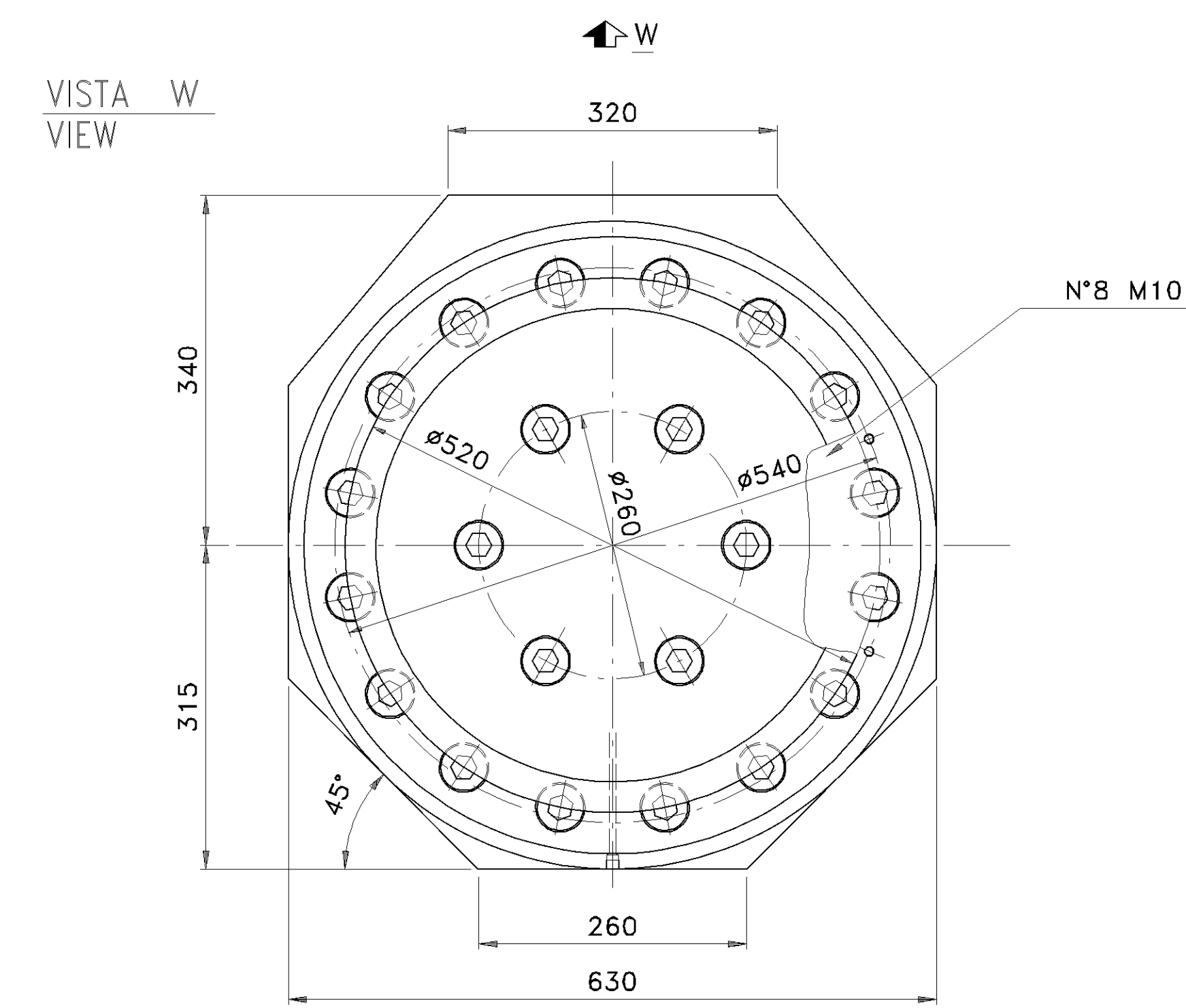
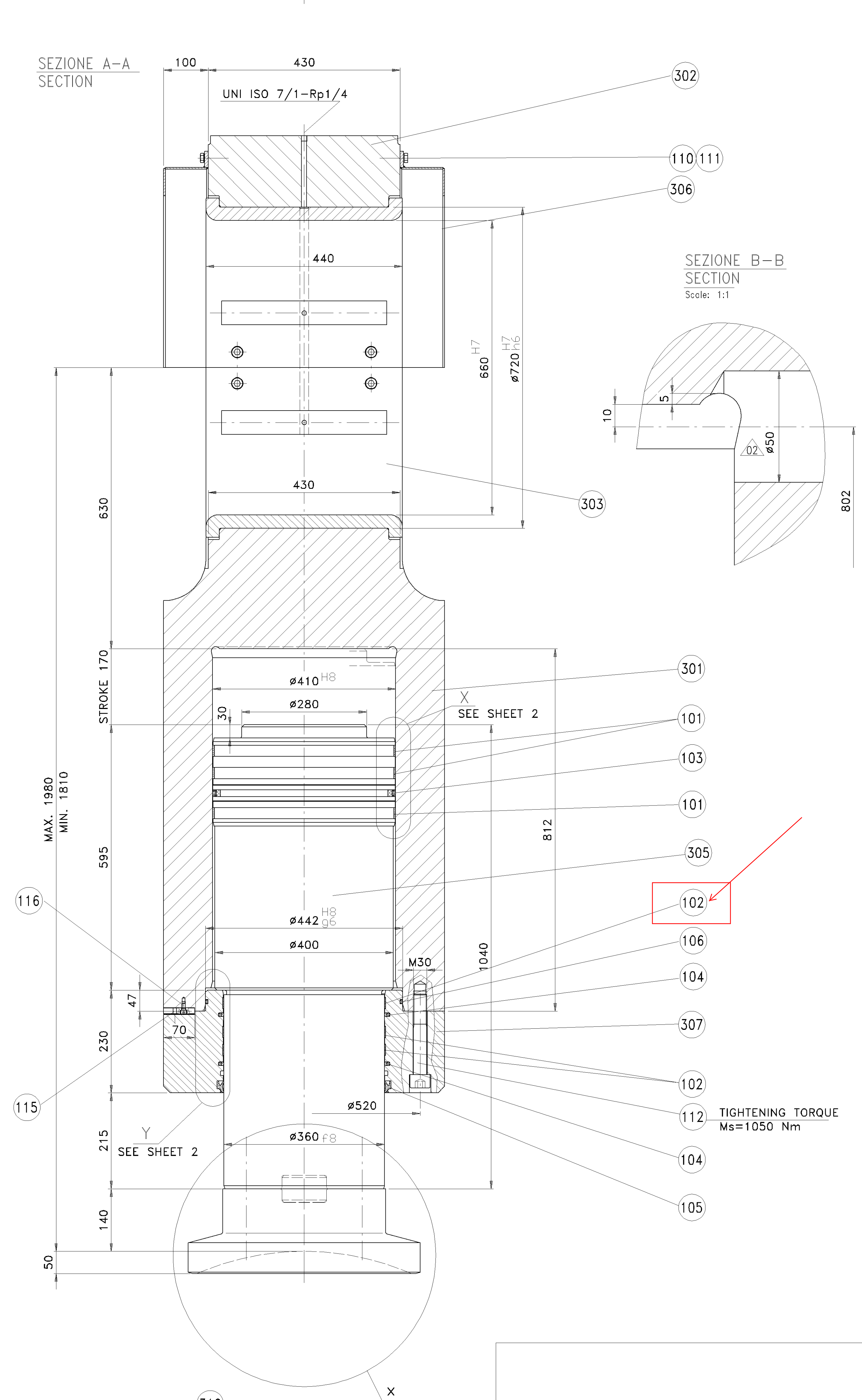
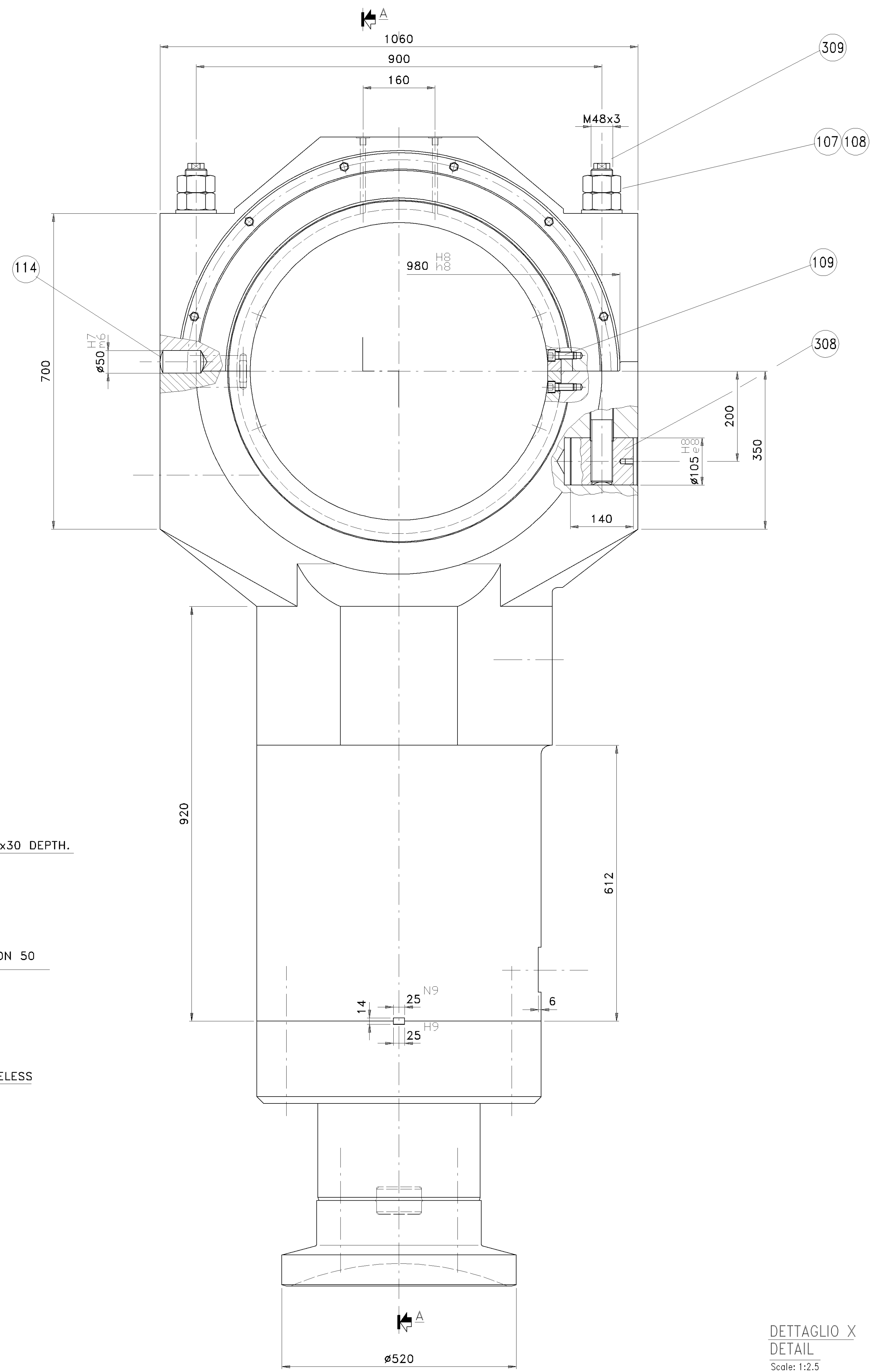
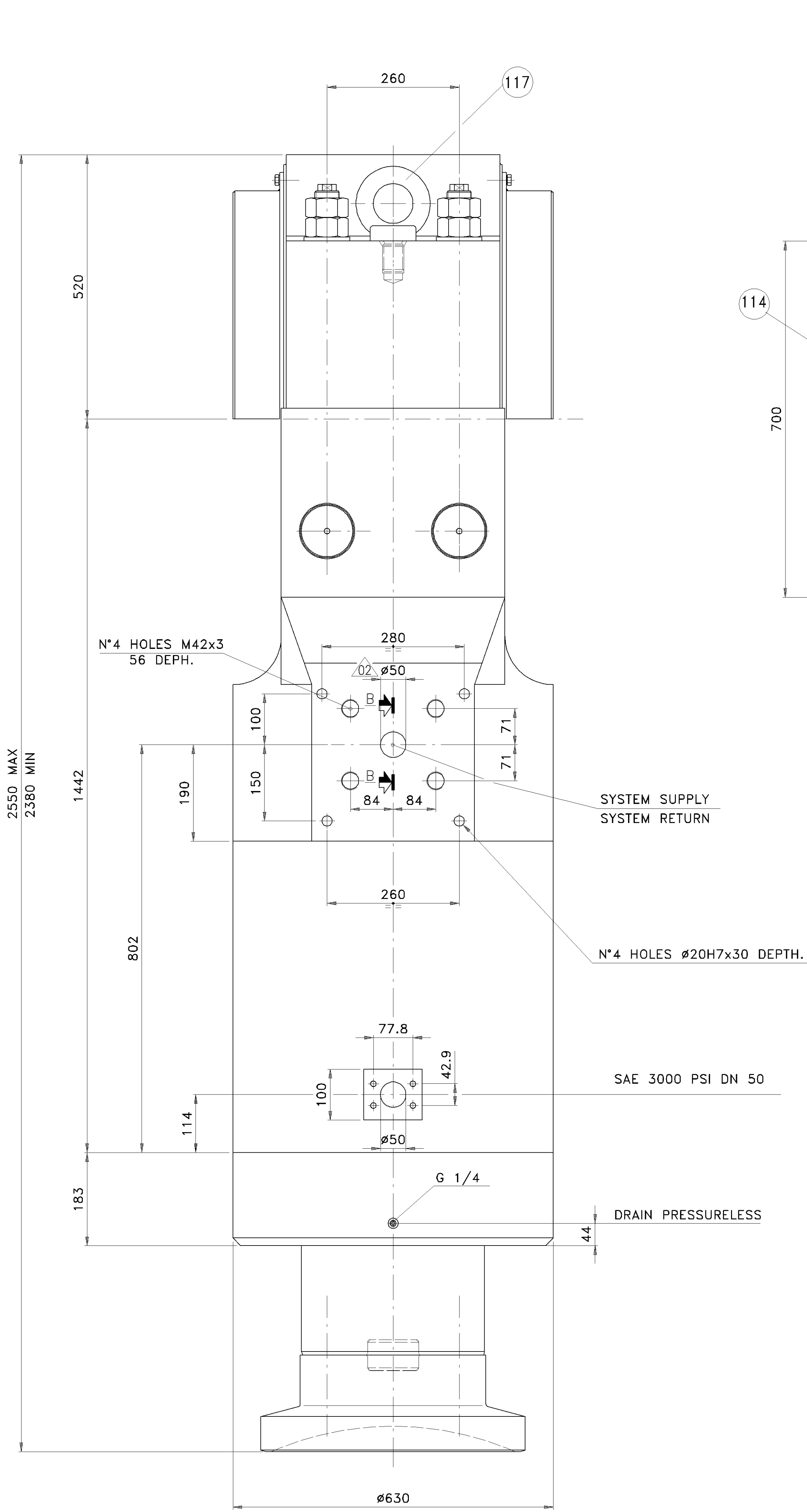
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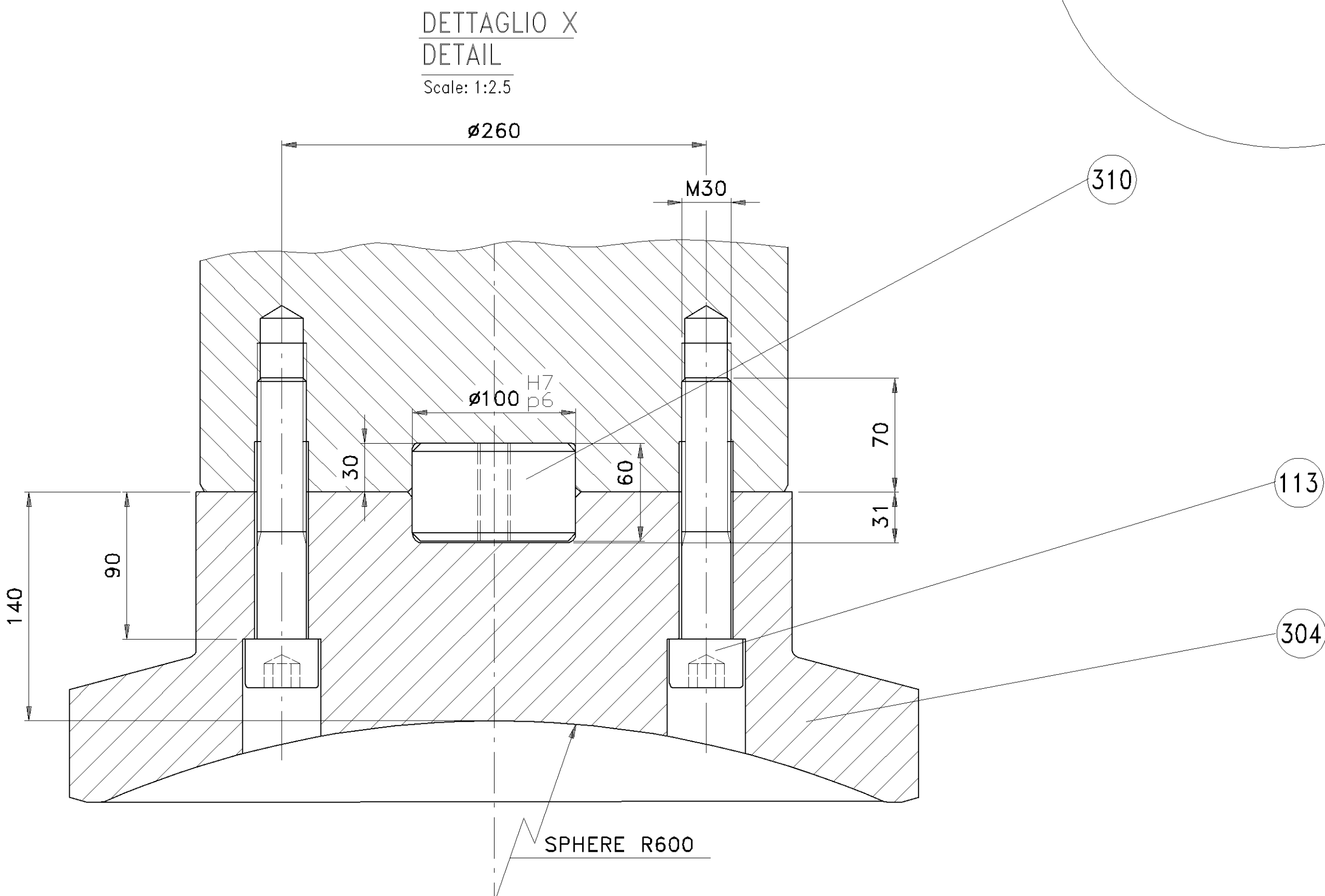
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کتابخانه: ☐

تاریخ: ۱۳۶۸ - ۰۱ - ۲۰



CYLINDER DATA	
PISTON DIAMETER	- 410mm
ROD DIAMETER	- 360mm
STROKE	- 170mm
CYLINDER AREA	- 1320/302cm²
FLUID	- QUINTOLUBRIC 822-300 OR EQUAL
MAX FLUID TEMPERATURE	- 50°C
NOMINAL WORKING PRESSURE	- 380 BAR by 900 TONS
MAX WORKING PRESSURE	- 550 BAR by 1450 TONS
VALVE OPENING PRESSURE	- 600 BAR by 1580 TONS



REV.	FILE	DATE	DESCRIPTION	DESIGNER	CHECKED	APPROVED
02		02.88	MODIFIED WHERE INDICATED	ODOPICO	BONDI	DRIGANI
01		04.87	ISSUED FOR MANUFACTURING	SELER	BONDI	DRIGANI
00		02.87	ISSUED FOR INFORMATION	SELER	BONDI	DRIGANI
REVISIONE-REVISIONS						
TITOLO-TITLE: SAFETY CYLINDER MECHANICAL ASSEMBLY						
8.140721.N						

DETTAGLIO Y
DETAIL FROM SHEET 1

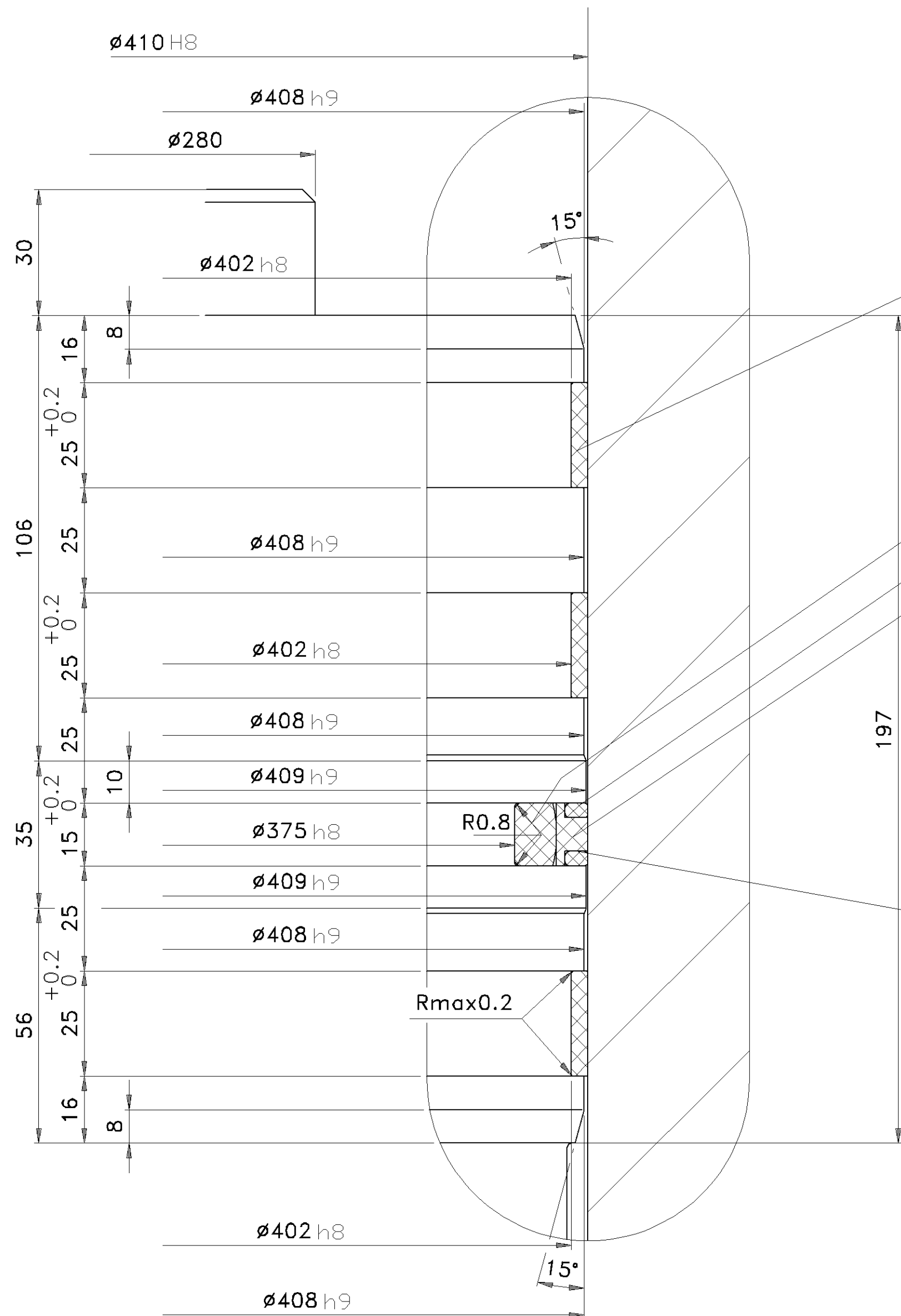
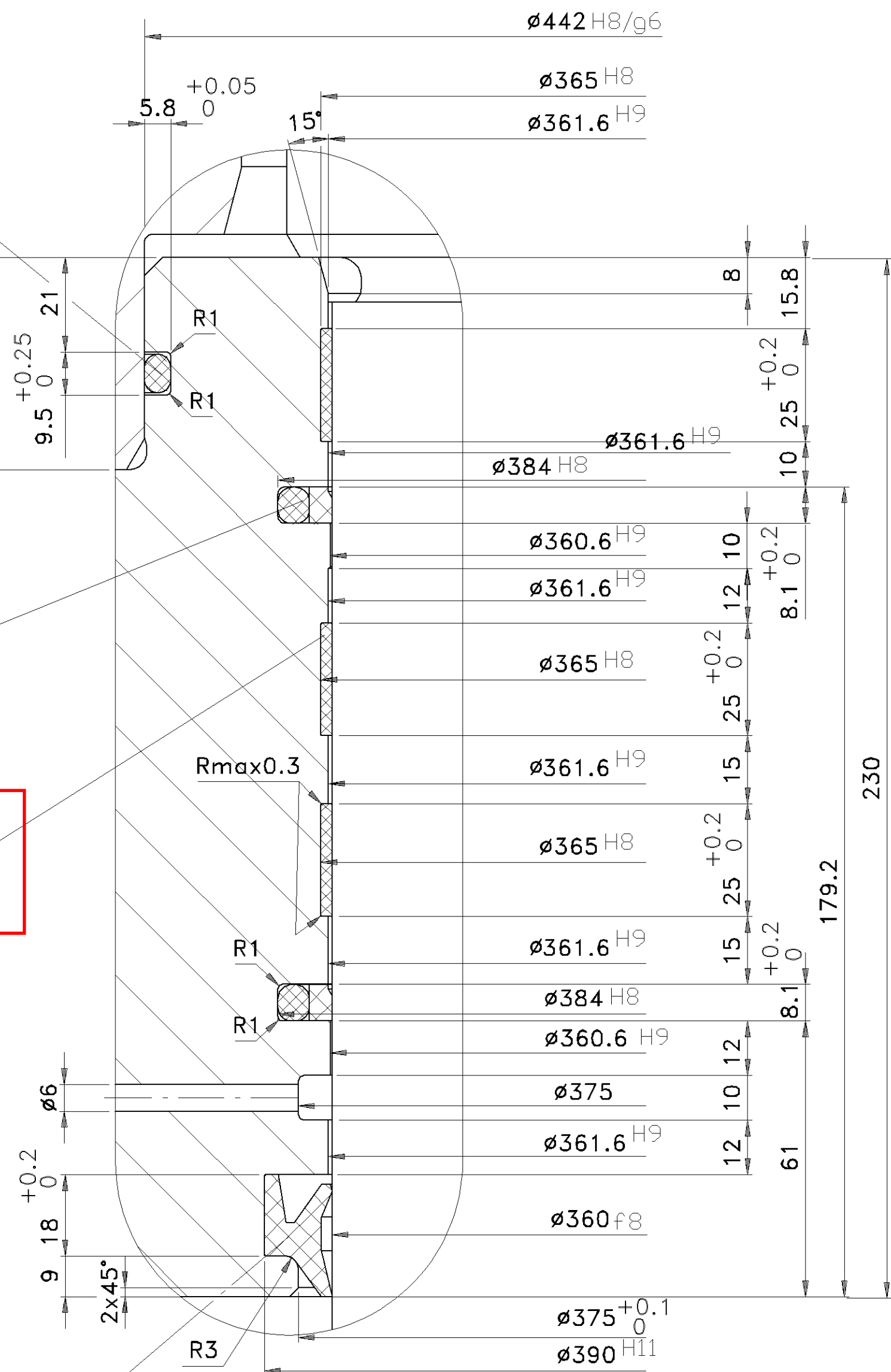
DETTAGLIO X
DETAIL FROM SHEET 1

O-RING OR 417.96x6.99
MERKEL REF. N° : 2575-255.565
MATERIAL : NBR 70° Sh. A
FA. MERKEL OR EQUAL

OMEGAT ROD SEAL
OMS-MR Ø360/384x8.1
MATERIAL: MT 28 PTFE/BRONZE
FA. MERKEL OR EQUAL

ROD GUIDE ELEMENT SF Ø360/365x25
MATERIAL: PHENOLIC RESIN MT64
FA. MERKEL OR EQUAL

DOUBLE WIPER P9-Ø360x390x27
MERKEL REF. N° : 2517-224.923
MATERIAL: NBR.-90 SHORE
FA. MERKEL OR EQUAL



PISTON GUIDE ELEMENT KF25x4
PHENOLIC RESIN MT64
FA. MERKEL OR EQUAL

MATERIAL : NBR 80° Sh.A
MATERIAL: POM/PA
MATERIAL: MT 28 PTFE/BRONZE

PISTON SEAL GASKET
OMK-SD Ø410/375x15
FA. MERKEL OR EQUAL

REV.	FILE	DATA DATE	DESCRIZIONE DESCRIPTION	DESIGNATO DRAWN	CONTROL CHECKED	APPROVATO APPROVED
02	C	02.98	MODIFIED WHERE INDICATED	ODORICO	BONDI	DRIGANI
01	C	04.97	ISSUED FOR MANUFACTURING	SEILER	BONDI	DRIGANI
00	C	02.97	ISSUED FOR INFORMATION	SEILER	BONDI	DRIGANI

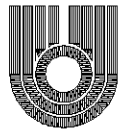
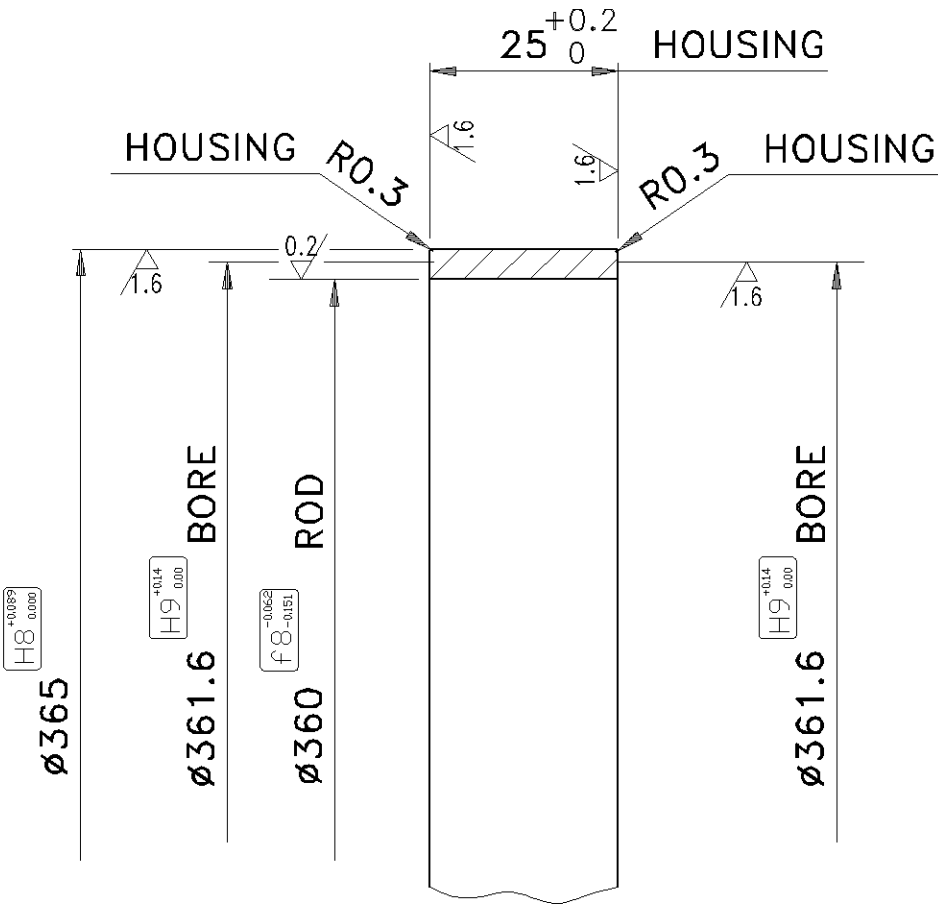
	DANIELI UNITED	1:1	/			A 1
SCALA SCALE		MASSA (Kg)	J=MxR² (Kgxm²)	CLASSIFICAZIONE CLASSIFICATION		FORM. SIZE
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OGGREG. SAFETY CYLINDER MECHANICAL ASSEMBLY						
DESIGNATO DRAWN	CONTROL CHECKED	APPROVATO APPROVED				
SEILER	BONDI	DRIGANI				
DATA DATE	DATA DATE	DATA DATE				
02.97	02.97	02.97				
8.140721.N						
Foglio SHEET			2/2		Segue FOLLOW -/-	

COMPUTER AIDED DESIGN

"MERKEL" ROD GUIDE ELEMENT SF 25x2.5 (LENGHT 1130₋₂⁰)
MATERIAL: PHENOLIC RESIN MT 64
OPERATING MEDIUM: QUINTOLUBRIC 822-300
MAN. MERKEL OR EQUAL

COMPUTER AIDED DESIGN

4499910S



DANIELI
UNITED

1:1

0.2

A3

SCALA
SCALE

MASSA (Kg)
MASS

J=MxR² (Kgxm²)

CLASSIFICAZIONE
CLASSIFICATION

FORM.
SIZE

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OGG.RE.: _____

TITOLO-TITLE: _____
ROD GUIDE ELEMENT

DISEGNATO DRAWN	CONTROL. CHECKED	APPROVATO APPROVED
SEILER	BONDI	DRIGANI
DATA DATE	DATA DATE	DATA DATE
04.97	04.97	04.97

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FOGLIO SHEET							SEGUE FOLLOWS	
							/	



Table I Selection Criteria for Slydring®

Slydring®		Application				Standard ¹⁾	Installation	Material	
Type	Page	Field of Application	Light	Medium	Heavy	Mating Surface	ISO	Size Range mm	Recommended Slydring® Material
 Turcite®/ Zurcon® Slydring®	9	Mobile hydraulics Standard cylinders Machine tools Injection moulding machines Automotive industry	● ● ● ●	- ● ● ●	- - - -	Steel Steel, hardchromed Cast iron Mild steel Stainless steel Aluminium, Bronze	ISO 10766	Off-the-roll up to diameter 4200	Turcite® T47
									Turcite® T51
		Pneumatics Water hydraulics Dry application	● ● ●	- ● ●	- - -	Mild steel Stainless steel Aluminium, Alloys			Turcite® T59
		Foodstuff industry Water hydraulics Dry application Pneumatics	● ● ● ●	● ● ● ●	- - - -	Steel Mild steel Steel, hardchromed Stainless steel Aluminium, Bronze Ceramic coating	ISO 10766	Off-the-roll up to diameter 4200	Zurcon® Z80 UHMWPE
 HiMod® Slydring®	20	Mobile hydraulics Standard cylinders Agricultural machinery	● ● ●	● ● ●	● - -	Steel Steel, hardchromed Cast iron	ISO 10766	Rings up to diameter 300	HiMod® HM061 POM/Glass fibre
		Mobile hydraulics Standard cylinders Agricultural machinery	● ● ●	● ● ●	- - -	Steel Steel, hardchromed Cast iron			HiMod® HM062 PA/Glass fibre + PTFE
		Mobile hydraulics Standard cylinders Agricultural machinery	● ● ●	● ● ●	● - -	Steel Steel, hardchromed Cast iron			HiMod® HM063 PA/Glass fibre
 Luytex® Slydring®	42	Mobile hydraulics Standard cylinders Presses	- ● ●	● ● ●	● ● ●	Steel Steel, hardchromed Cast iron Ceramic coating	ISO 10766	Rings up to diameter 1500 ²⁾	Luytex® C320 Polymer/fabric
		Mobile hydraulics Standard cylinders Water hydraulics Shipping and marine engineering Presses	- ● ● ● ●	● ● ● ●	● ● ● ●	Steel Steel, hardchromed Cast iron Stainless steel			Luytex® C380 Polymer/fabric
		Mobile hydraulics Standard cylinders Presses	- ● ●	● ● ●	● ● ●	Steel Steel, hardchromed Cast iron Stainless steel		Rings up to diameter 1200 ²⁾	Luytex® C931 Phenolic/cotton

1) For Slydring® to other standards, e.g. to French standard NF E 48-037, please contact us.

2) Segments made from off-the-roll material can be used for larger diameters.

MAT:PHENOLIC RESIN MT64
LENGHT=1130 mm



■ Installation Recommendation, Turcite® and Zurcon® Slydring® for Rod According to ISO 10766 Groove Dimension

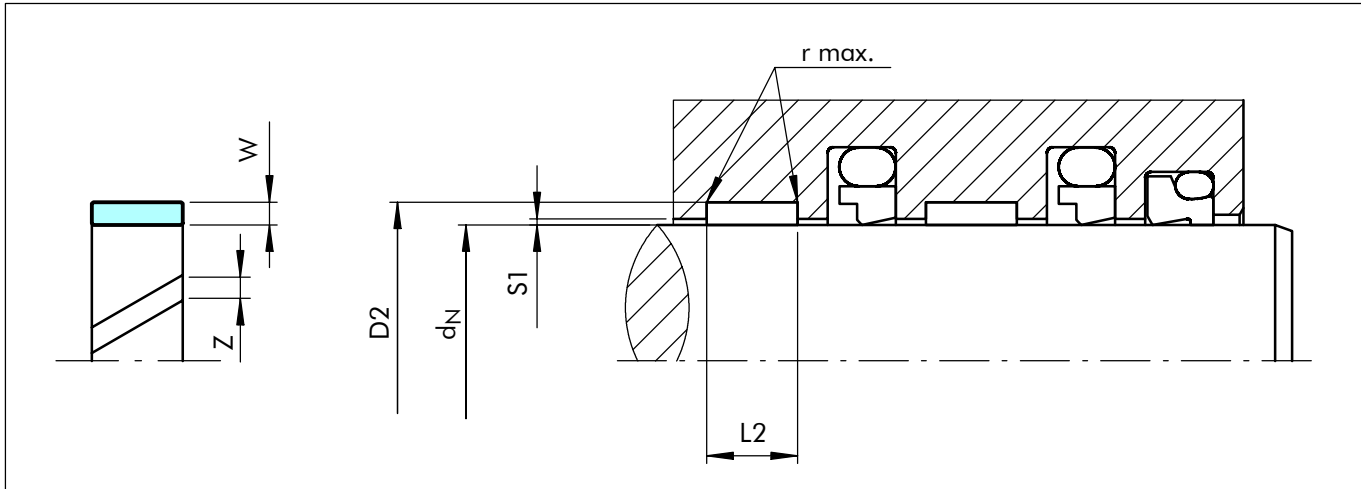


Figure 10 Installation drawing

Table XIII Installation Dimensions

Serial No.	Rod Diameter ¹⁾	Groove Diameter	Groove Width	Ring Thickness	Ring Gap ³⁾
	d_N f8/h9	D_2 H8	$L_2 + 0.2$	W	Z
GR41	8 - 20.0	$d_N + 3.10$	2.50	1.55	1 - 2
GR43	10 - 50.0	$d_N + 3.10$	4.00	1.55	1 - 3
GR65	15 - 140.0	$d_N + 5.00$	5.60	2.50	2 - 5
GR69	20 - 220.0	$d_N + 5.00$	9.70	2.50	2 - 9
GR73	80 - 400.0	$d_N + 5.00$	15.00	2.50	4 - 15
GR75	200 - 999.9	$d_N + 5.00$	25.00	2.50	8 - 33
GR75X	1000-4200.0	$d_N + 5.00$	25.00	2.50	33-134
GR98	280 - 999.9	$d_N + 8.00$	25.00	4.00	10 - 33
GR98X	1000-2200.0	$d_N + 8.00$	25.00	4.00	33 - 70

¹⁾ Recommended diameter ranges. ³⁾ Calculation of the straight length, see page 8.

For Slydring® to other standards, e.g French standard NF E 48-037, please contact us.

Table XIV Recommended Radii for Groove Dia.

d_N	r max.
8 - 250	0.2
>250	0.4

Table XV Radial Clearance S1 ²⁾

Rod Dia. d_N	S1 min.	S1 max.
8 - 20	0.20	0.30
20 - 100	0.25	0.40
101 - 250	0.30	0.60
251 - 500	0.40	0.80
501 - 1000	0.50	1.10
>1001	0.60	1.20

²⁾ Specifications valid only in the area of the Slydring®, but not for the seal area.

Table XVI Surface Roughness

Parameter	Mating Surface μm		Groove Surface μm
	Turcite® Materials	Zurcon® Materials	
R_{max}	0.63 - 4.00	1.00 - 4.00	< 16.0
R_z DIN	0.40 - 2.50	0.63 - 2.50	< 10.0
R_a	0.05 - 0.40	0.10 - 0.40	< 2.5



Dimensions				Part No.
Rod Diameter	Groove Diameter	Groove Width	Thick-ness	
d_N f8/h9	D_2 H8	L_2 +0.2	W	
105.0	110.0	9.7	2.50	GR6901050
105.0	110.0	15.0	2.50	GR7301050
110.0	115.0	9.7	2.50	GR6901100
110.0	115.0	15.0	2.50	GR7301100
115.0	120.0	9.7	2.50	GR6901150
115.0	120.0	15.0	2.50	GR7301150
120.0	125.0	5.6	2.50	GR6501200
120.0	125.0	9.7	2.50	GR6901200
120.0	125.0	15.0	2.50	GR7301200
125.0	130.0	9.7	2.50	GR6901250
125.0	130.0	15.0	2.50	GR7301250
130.0	135.0	15.0	2.50	GR7301300
135.0	140.0	15.0	2.50	GR7301350
140.0	145.0	9.7	2.50	GR6901400
140.0	145.0	15.0	2.50	GR7301400
150.0	155.0	15.0	2.50	GR7301500
155.0	160.0	15.0	2.50	GR7301550
160.0	165.0	9.7	2.50	GR6901600
160.0	165.0	15.0	2.50	GR7301600
170.0	175.0	15.0	2.50	GR7301700
180.0	185.0	9.7	2.50	GR6901800
180.0	185.0	15.0	2.50	GR7301800
190.0	195.0	15.0	2.50	GR7301900
195.0	200.0	15.0	2.50	GR7301950
200.0	205.0	15.0	2.50	GR7302000
200.0	205.0	25.0	2.50	GR7502000
210.0	215.0	15.0	2.50	GR7302100
220.0	225.0	15.0	2.50	GR7302200
220.0	225.0	25.0	2.50	GR7502200
230.0	235.0	25.0	2.50	GR7502300
240.0	245.0	25.0	2.50	GR7502400
250.0	255.0	15.0	2.50	GR7302500
250.0	255.0	25.0	2.50	GR7502500
280.0	285.0	15.0	2.50	GR7302800
280.0	285.0	25.0	2.50	GR7502800
280.0	288.0	25.0	4.00	GR9802800
300.0	305.0	25.0	2.50	GR7503000
320.0	325.0	15.0	2.50	GR7303200
320.0	325.0	25.0	2.50	GR7503200

Dimensions				Part No.
Rod Diameter	Groove Diameter	Groove Width	Thick-ness	
d_N f8/h9	D_2 H8	L_2 +0.2	W	
320.0	328.0	25.0	4.00	GR9803200
350.0	355.0	25.0	2.50	GR7503500
360.0	365.0	15.0	2.50	GR7303600
360.0	365.0	25.0	2.50	GR7503600
360.0	368.0	25.0	4.00	GR9803600
400.0	405.0	25.0	2.50	GR7504000
400.0	408.0	25.0	4.00	GR9804000
800.0	805.0	25.0	2.50	GR7508000
800.0	808.0	25.0	4.00	GR9808000
1000.0	1005.0	25.0	2.50	GR75X1000
1000.0	1008.0	25.0	4.00	GR98X1000
2600.0	2605.0	25.0	2.50	GR75X2600
4200.0	4205.0	25.0	2.50	GR75X4200

Zurcon® Z80 is not available as GR98 and GR98X
(Thickness W=4.0 mm)

All sizes printed in bold type conform to ISO 10766 and should be preferred for use.

All intermediate sizes not contained in the table are available upon request.

The Order No. can be formed from the example below.

Ordering Example

Slydring® for rod diameter $d_N = 63.0$ mm
Series GR 65 from Table XIII
Groove width: 5.60 mm, ring thickness: 2.50 mm

Material: Turcite® T47
(other materials see Table I)

Standard design: With angle cut and teardrop structure

Design code: 0
Order No.: GR6500630 (from Table XVII)

Order No.	GR65	0	0630	-	T47
Serial No.					
Design code, standard					
Rod diameter x 10					
Quality Index (Standard)					
Material No.					