

Signature Page

00011.20.QDW.00050

8B0400 Chem Vessel 1000 liters

<u>Name</u>	<u>Role</u>	<u>Reason</u>
Denis Viallon	Design Lead	For Approval For Construction

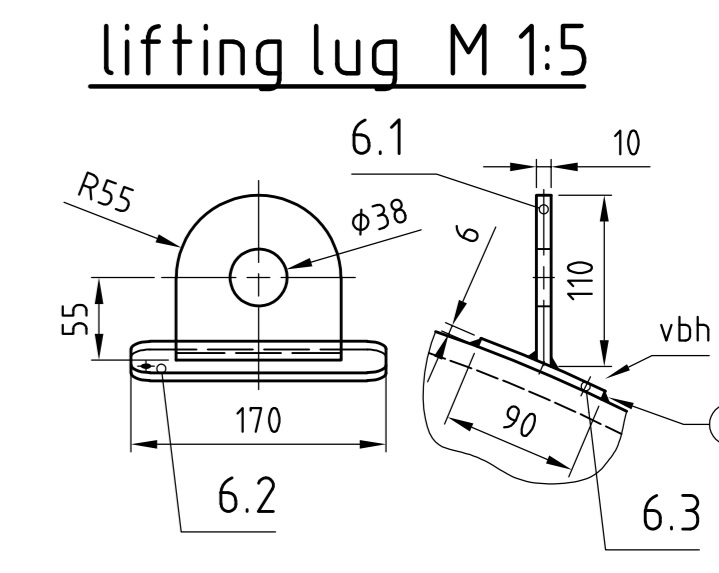
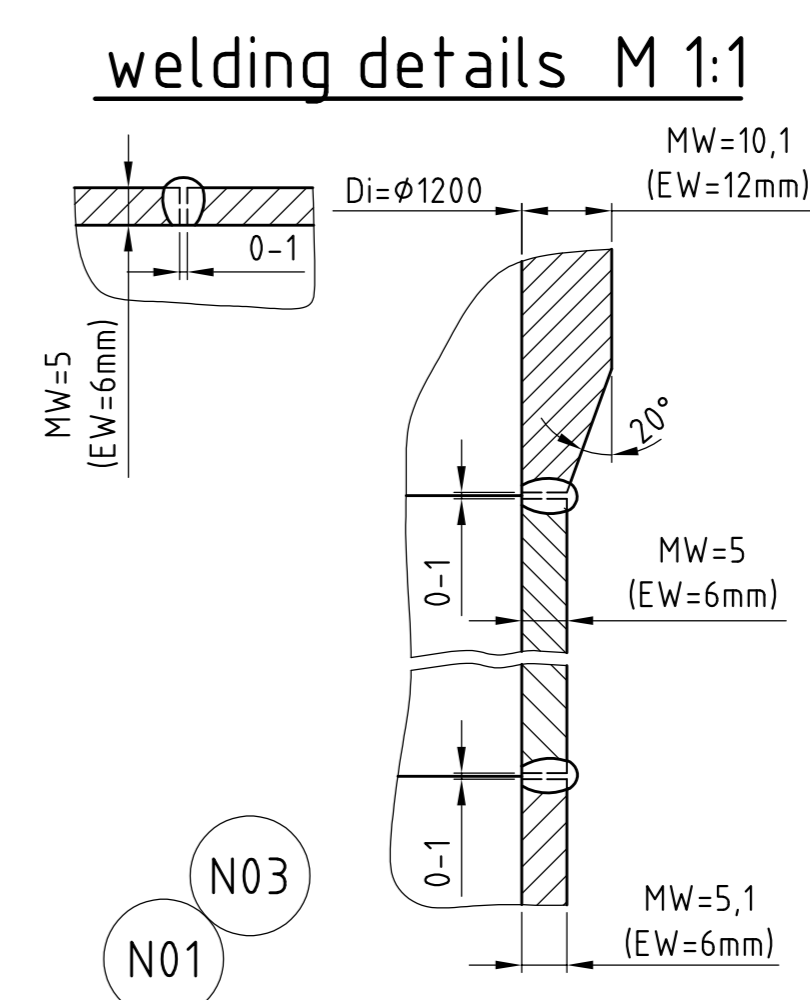
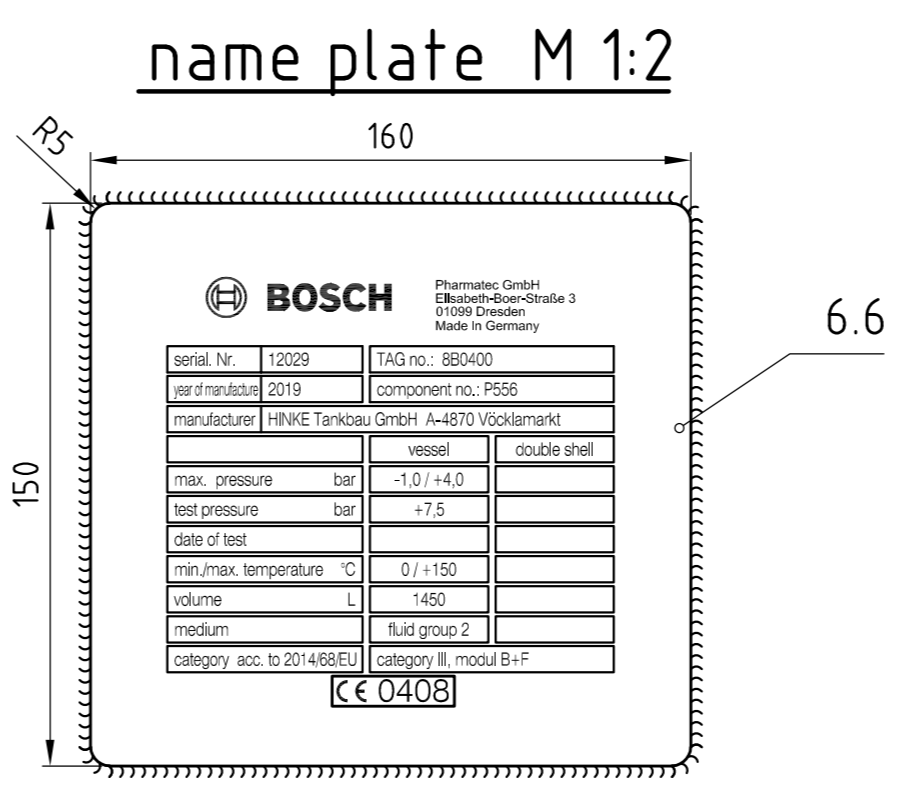
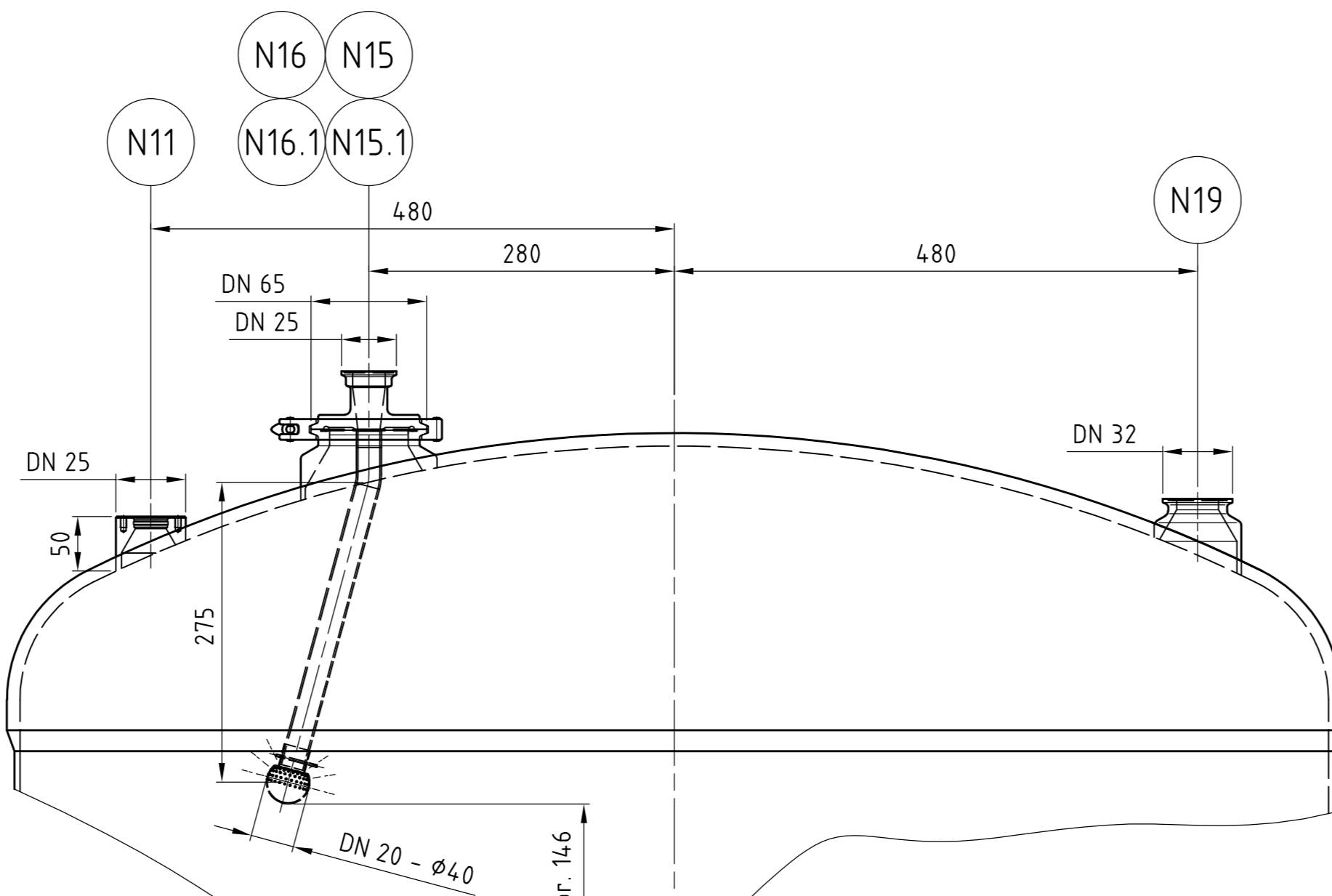
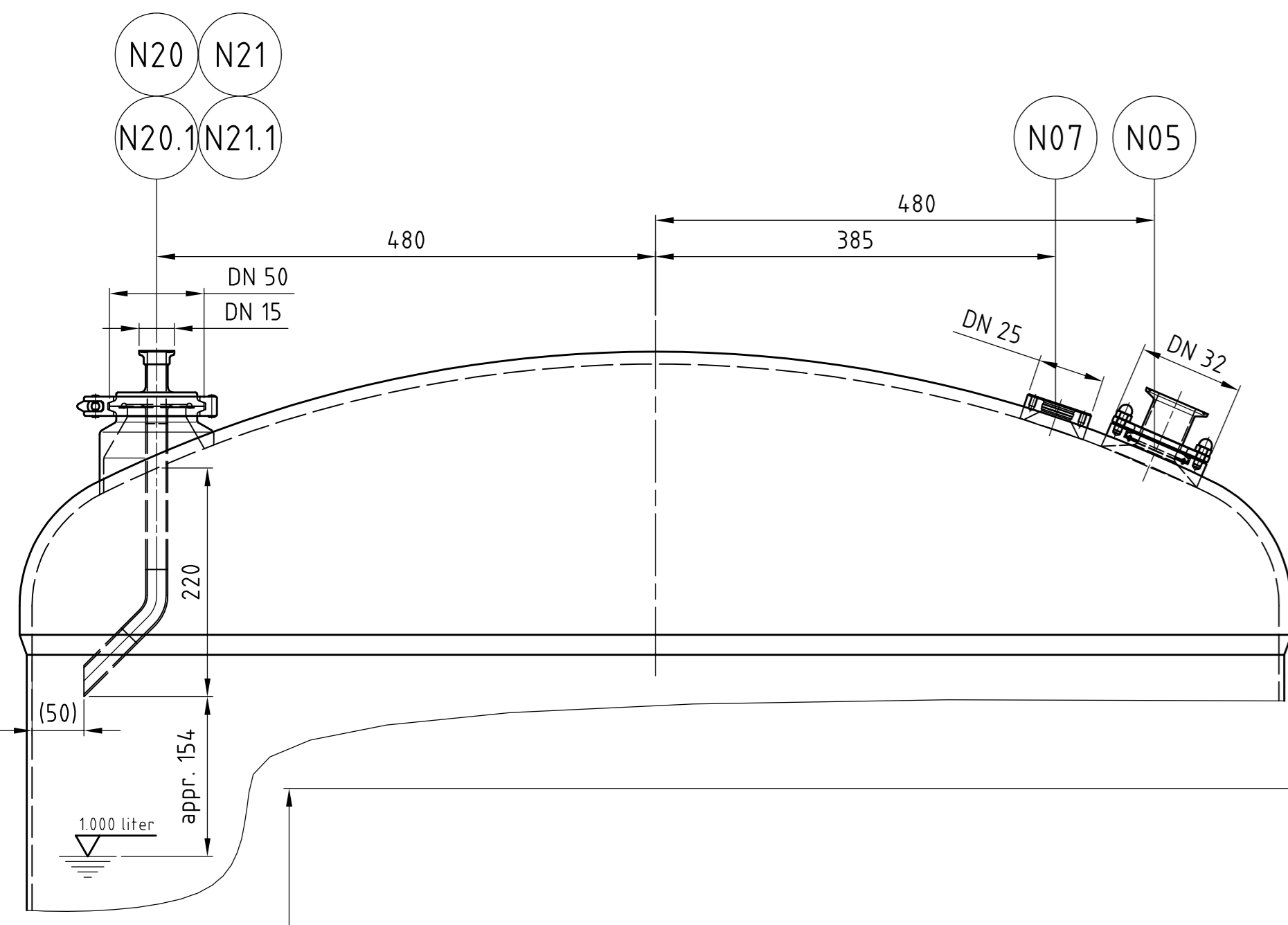
Signed by:

Date YYYY/MM/DD (UTC):

00011.20.QDW.00050, Rev 01 - Approved for Construction - 07-Nov-2019 2:25:05 PM

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8B0400 Chem Vessel 1000 liters
(signature page 1 of 1)

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1 pce. Chem. Vessel - 1000 liter

TAG no.: 8B0400
 commissionnumber: 6864-02
 fabricationnumber: 12029
 total volume: 1450 l
 max. working overpressure: -1,0/+4,0 bar(u)
 material: 1.4435 - (contacting with medium)
 1.4462 - (metal fused sight glass)
 1.4301 - (insulation)
 - (non contacting with medium e.g. additions etc.)
 - (safety adjustment and spring from manhole N01)

INDOOR location, no wind and snow load; no traffic load
 location CH-Lengnau: earthquake zone 1 acc. to SIA 261
 Classification acc. to DGR 2014/68/EU: category III, module B (3.2) + F
 Production, dimensioning and survey according to AD-2000 Regelwerk
 test specification according AD-W2: EN 10028-7 } 3.1 AD-W2
 EN 10217-7 / EN 10216-5

diameter inside	1200 mm
cylindrical height	900 mm
total height	1440 mm
net weight (approximate)	800 kg
gross weight (approximate)	2300 kg

shell	MW=5,0mm (EW=6mm), sheet metal according EN 10028-7 ID
top head	MW=10,1mm (EW=12mm), sheet metal according EN 10028-7 ID
bottom head	MW=5,1mm (EW=6mm), sheet metal according EN 10028-7 ID
head design	torspherical form R=D, r=D/10 according DIN 28011 and AD-B3, cold coiled according AD-HP 7/3

max. working overpressure	-1,0/+4,0 bar(g)
test pressure	+7,5 bar(g)
working temperature max.	-0/+150°C
calculation temperature	+150°C
medium	fluid group 2 (CIP-medium)
density	1,000 kg/m³
total volumen	1,450 liter
useful volumen	1,000 liter

calculation data - load cycles acc. AD-S1

load case 1	working pressure min./max. -0/+2,3 bar(g); range of pressure variations: 2,3 bar
design temperature	+135°C
number of load cycles	100

load case 2	working pressure min./max. -0/+1,0 bar(g); range of pressure variations: 1,0 bar
design temperature	+135°C
number of load cycles	32.000

welding process	v=1
WIG	Plasma, MAG, Orbital
component metal	1.4435 1.4519 1.4430
metal	1.4435 - 1.4301 1.4430
welds	not dimensioned fillet welds a=0,7s (lamin=3mm); all accessible welds back-welded; Fritures circumferentially gas-tight welded.
delta ferrite content	welds $\le 3,0\%$ contacting with medium
non-destructive test	AD-HP 5/3 straight beads, T-joints 100% x-ray; girth welds: 25% x-ray; 100% fluorescent penetration test at fillet welds, nozzle welds, straight beads, girth welds and T-joints.
vent bore holes (vbh)	Tapped M4/M5/M6/M8 with hex-socket set screw M4x5/M5x4/M6x6/M8x8 of AL (DIN 913/DIN 916) close
surface inside	heads, shell and welds (incl. fillet welds) are grinded to Ra=0,6µm; top head and insulation bottom (incl. straight bead) grinded to Ra=1,2 µm. Remaining surface (excl. welds) grinded to Ra=1,2 µm. All welds outside electrochemical cleaned (not grinded) Flange and nozzle in turned surface DIN 11866 series A (DIN 11850) and series B (DIN EN ISO 1127).
surface outside	
tubes	EN 10217-7
gasket material	NA-Connect EPDM peroxide cross-linked
manhole	O-ring EPDM peroxide cross-linked
bottom outlet	EPDM peroxide cross-linked
screw material	AZ-70, A4
manhole	plastic stare handles
sight glass disc	borosilicate glass according DIN 7080
insulation	facing material 1.4301 (completely gas-tight welded), 100 mm mineral wool (fabr. ISOVER) acc. AGI Q 132

N00	1	testsocket insulation	1	G 1/4"	1.4301	0143	Neumo Bst/control
N01	1	level switch	25	%		0143	Neumo Bst/control with blindtap
N02	1	temperature measurement	1	G 1/2"	1.4301	0143	Neumo Bst/control
N03	1	bottom outlet	1	DN 32	1.4301	0143	Fabr. Genu
N04	1	spare part	1	DN 150	1.4301	0143	Neumo Bst/control with blindtap
N05	1	leg part	1	DN 32/36	1.4301	0143	Neumo Bst/control
N06	1	manhole	1	DN 11866-3	1.4301	0143	Neumo Bst/control
N07	1	manhole	1	DN 11866-3	1.4301	0143	Neumo Bst/control
N08	1	manhole	1	DN 11866-3	1.4301	0143	Neumo Bst/control
N09	1	manhole	1	DN 11866-3	1.4301	0143	Neumo Bst/control
N10	1	manhole	1	DN 11866-3	1.4301	0143	Neumo Bst/control
N11	1	manhole	1	DN 11866-3	1.4301	0143	Neumo Bst/control
N12	1	manhole	1	DN 11866-3	1.4301	0143	Neumo Bst/control
N13	1	manhole	1	DN 11866-3	1.4301	0143	Neumo Bst/control
N14	1	manhole	1	DN 11866-3	1.4301	0143	Neumo Bst/control
N15	1	manhole	1	DN 11866-3	1.4301	0143	Neumo Bst/control
N16	1	manhole	1	DN 11866-3	1.4301	0143	Neumo Bst/control
N17	1	manhole	1	DN 11866-3	1.4301	0143	Neumo Bst/control
N18	1	manhole	1	DN 11866-3	1.4301	0143	Neumo Bst/control
N19	1	manhole	1	DN 11866-3	1.4301	0143	Neumo Bst/control
N20	1	manhole	1	DN 11866-3	1.4301	0143	Neumo Bst/control
N21	1	manhole	1	DN 11866-3	1.4301	0143	Neumo Bst/control

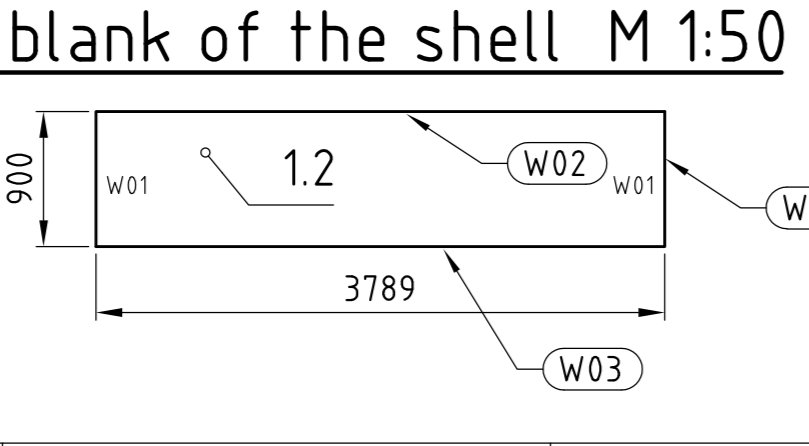
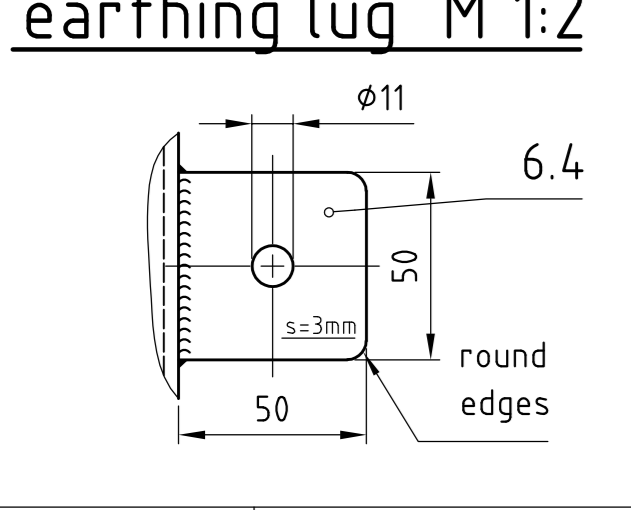
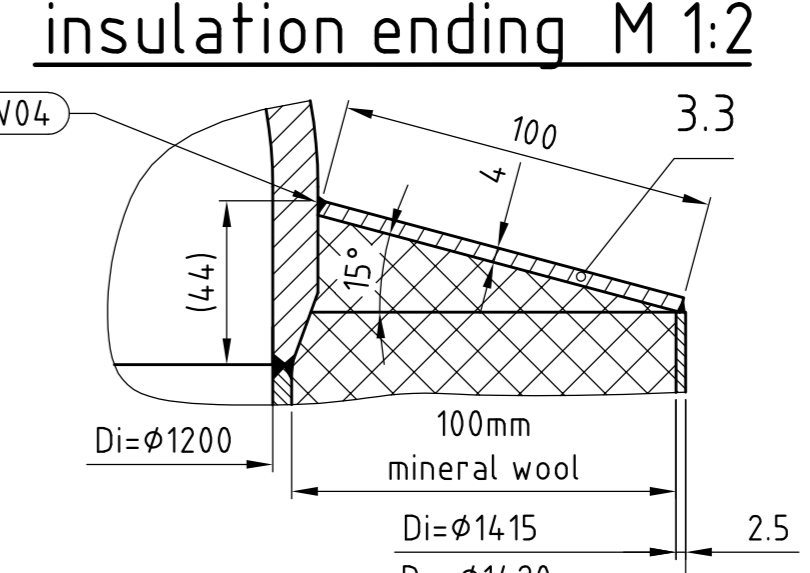
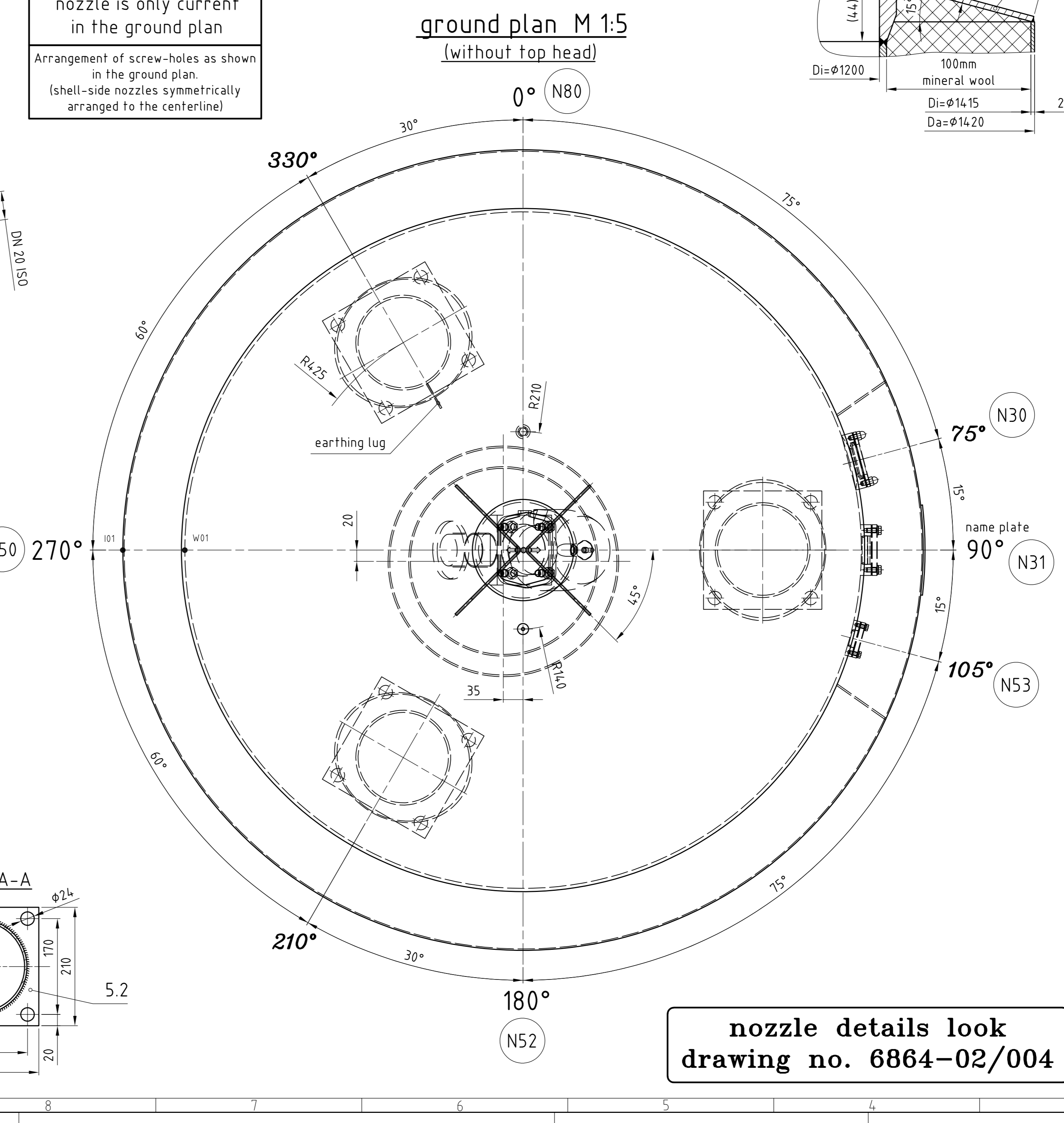
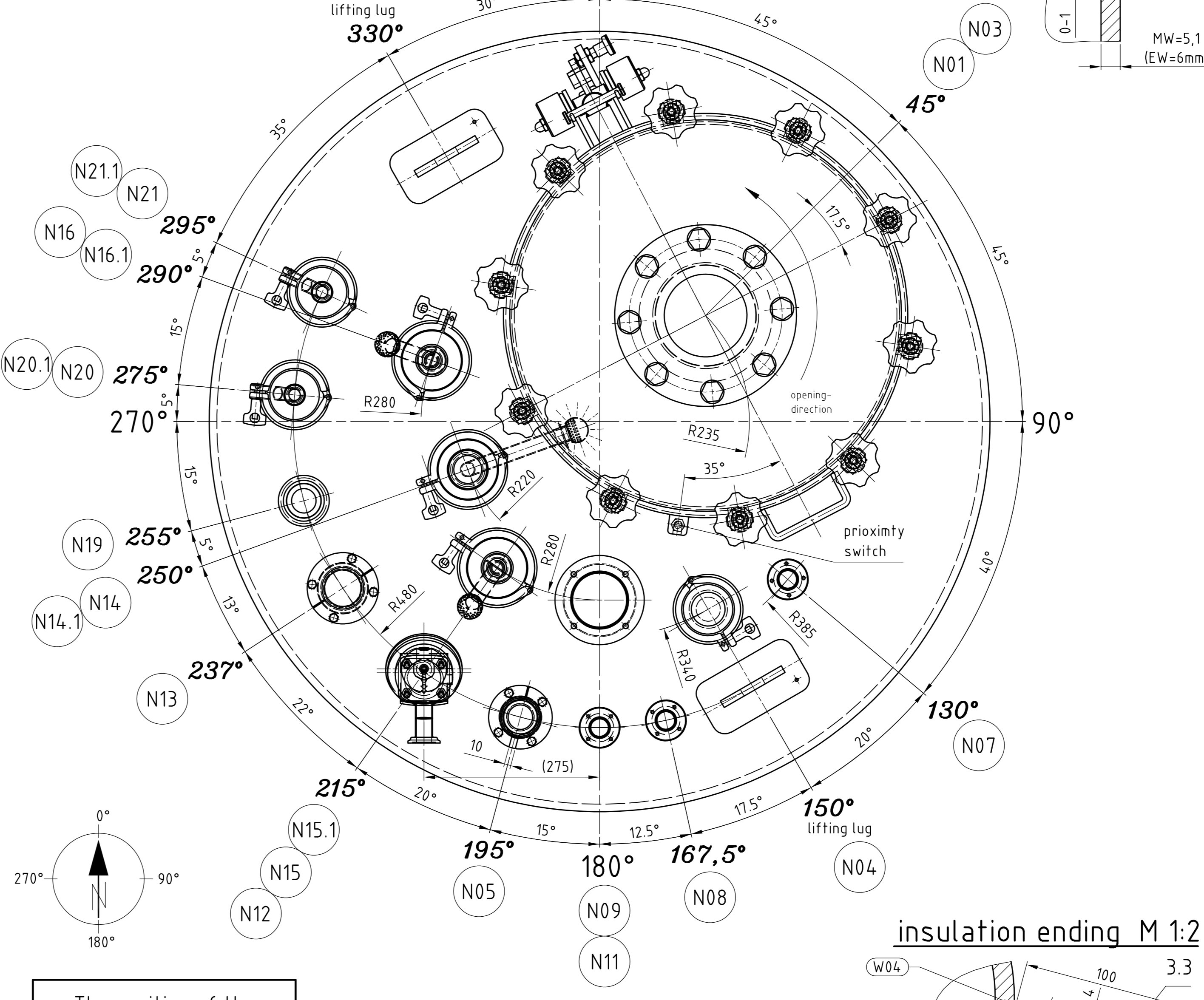
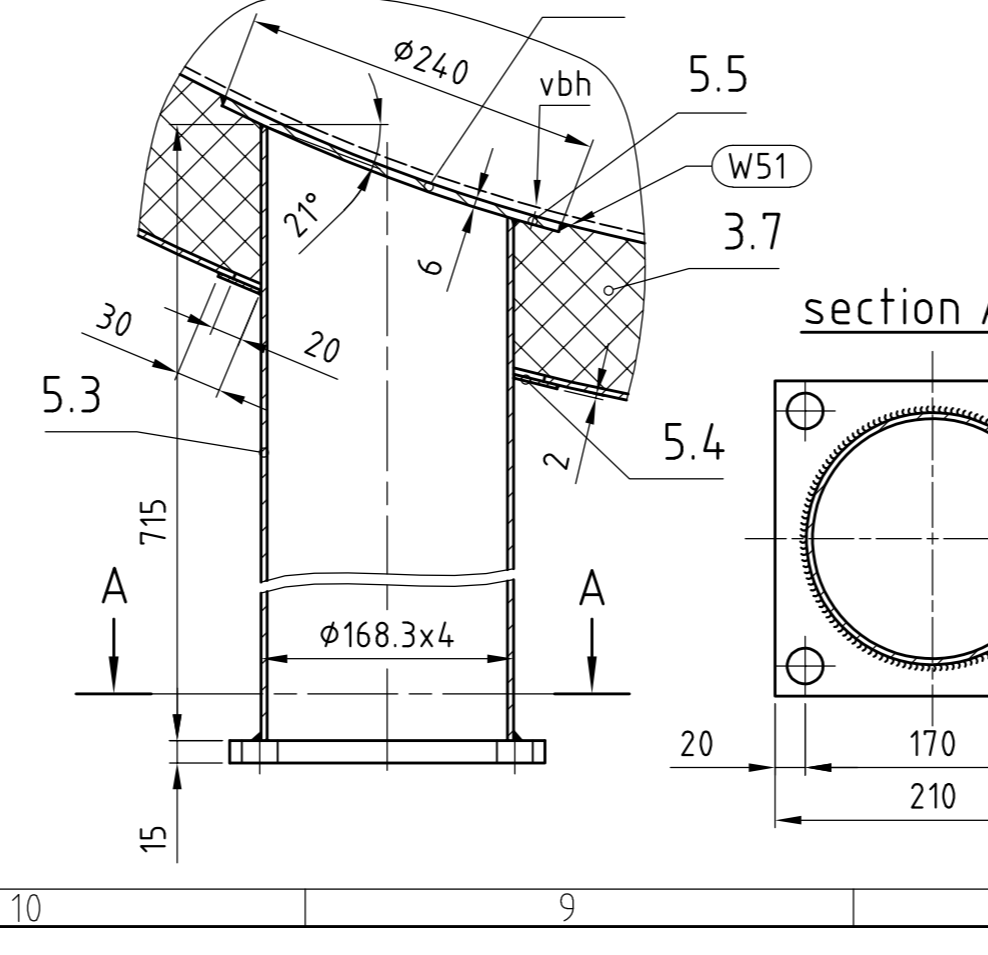
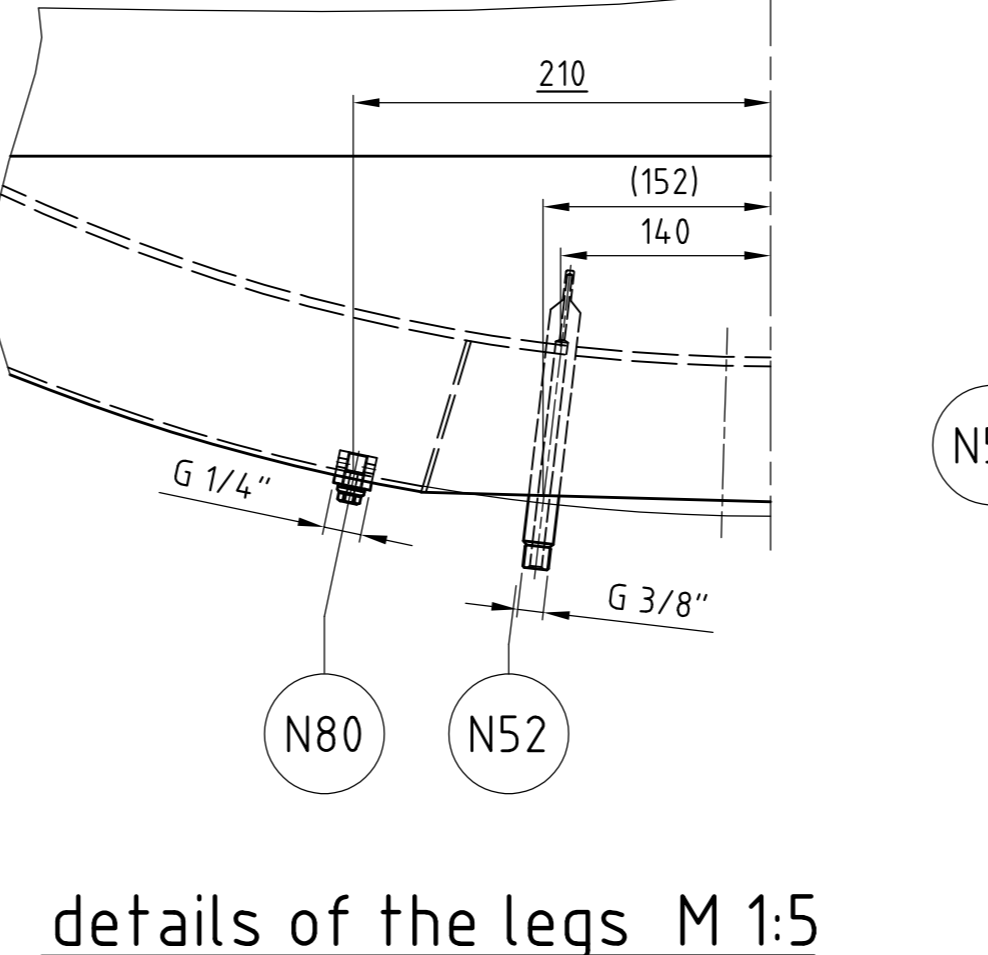
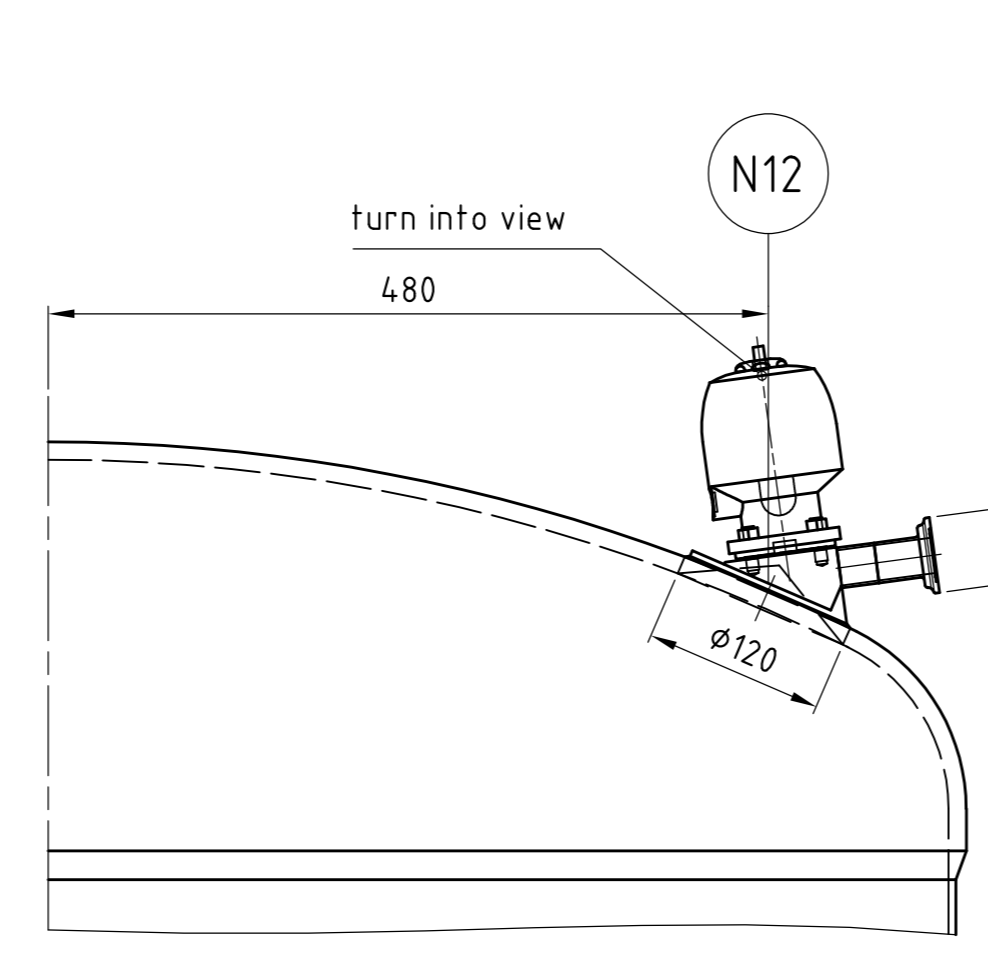
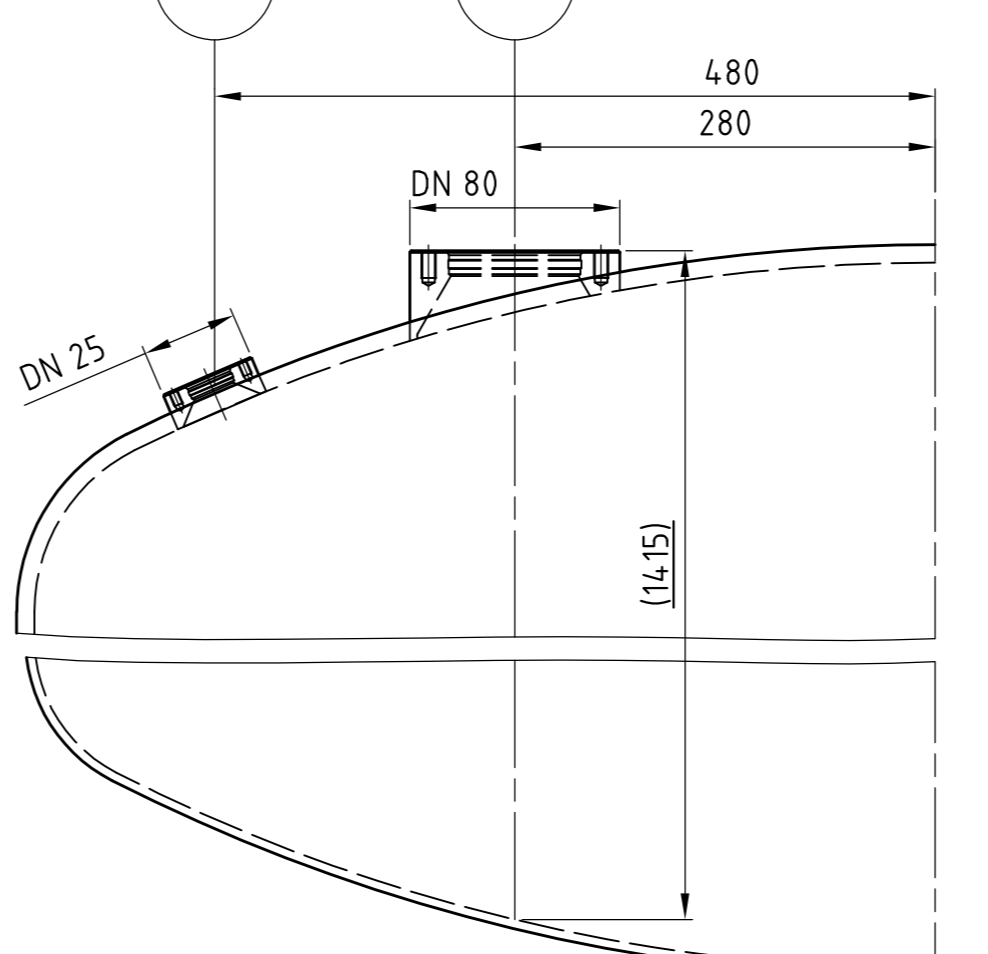
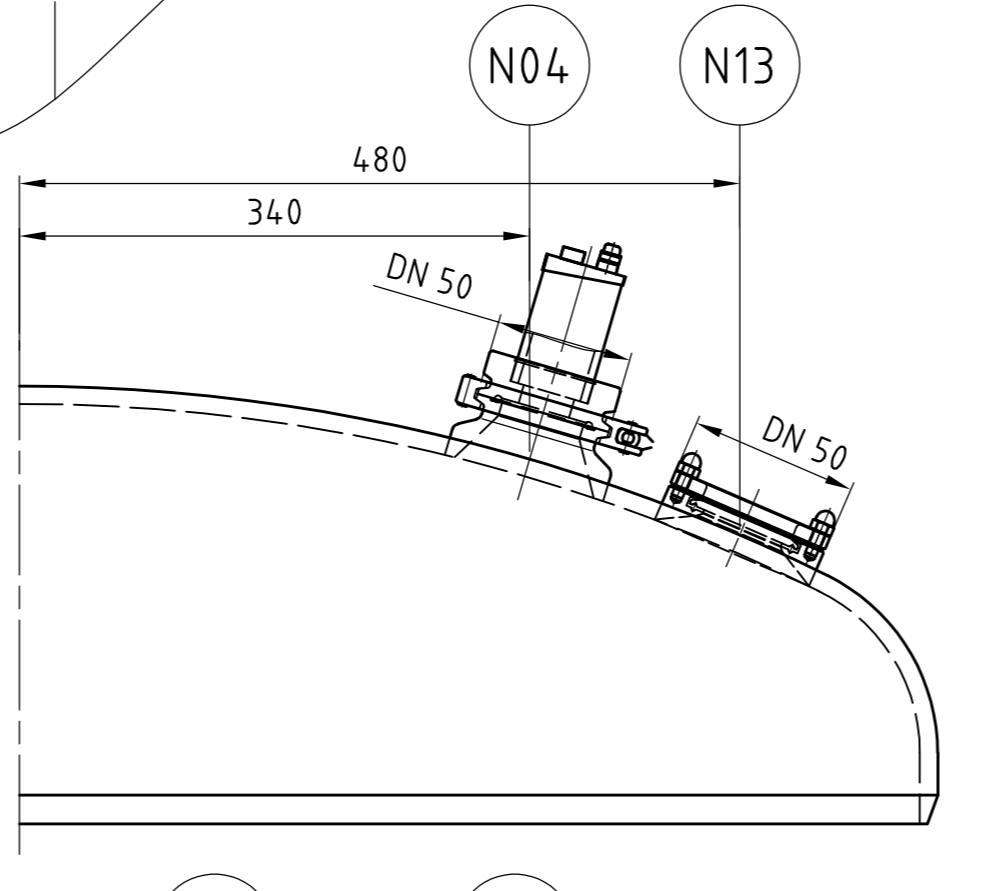
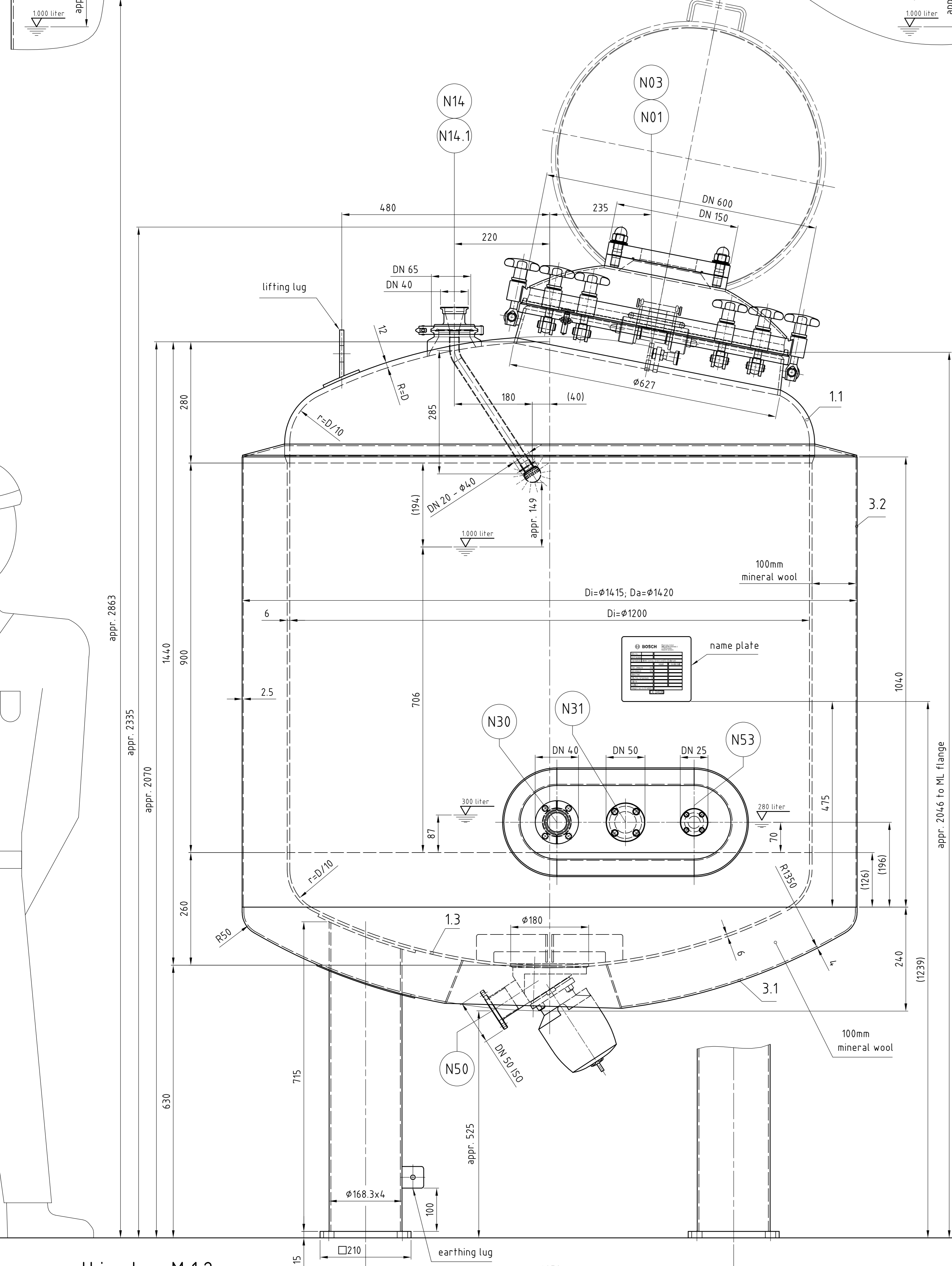
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rev	date	name	details of revision				

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Pharmatec GmbH
 1 pce. Chem. Vessel - 1000 liter
 TAG no. 8B0400
 material 1.4435

dwg.-no. 6864-02/003a
 replace-ment for: 6864-02/003
 replaced through:



nozzle details look
drawing no. 6864-02/004