

ELKOM[®]



moisture holders

APPLICATION

Moisture holders are used to take out the moisture of the air that enters the expansion vessel when the transformer is operating. In this way it hinders water condensation in the expansion vessel and operation safety of the transformer is increased.

CONSTRUCTION

Moisture holders of 0,5-1 kg (Form A,B,C)

The top and the bottom sections are casted aluminum and electrostatic powder painted.

The shafts are made of nickel plated steel and the sieves are made of zinc sheet. Container cylinder is glass or polycarbonate depending on the customers' request. Oil bowl is of polycarbonate and the bowl holder is made of CrNi material.

Moisture Holders MH 0.15 Kg

The top flange is casted aluminum and electrostatic powder painted. Container cylinder and oil bowl is made of polycarbonate.

Moisture holders of Types MH 1.2 to 2.4 Kg (DIN 42562)

All the flanges are GG-14 casting and coated with a special wet paint having high resistance to corrosion. The upper connection flange (Item-5) and its pipe are made of St 37 material.

Container cylinder and oil bowl is made of glass. The oil bowl dome can be Ms 63 brass or aluminum depending on the request.

The sieves are made of zinc sheet.

The butterfly nuts are forged CrNi material.

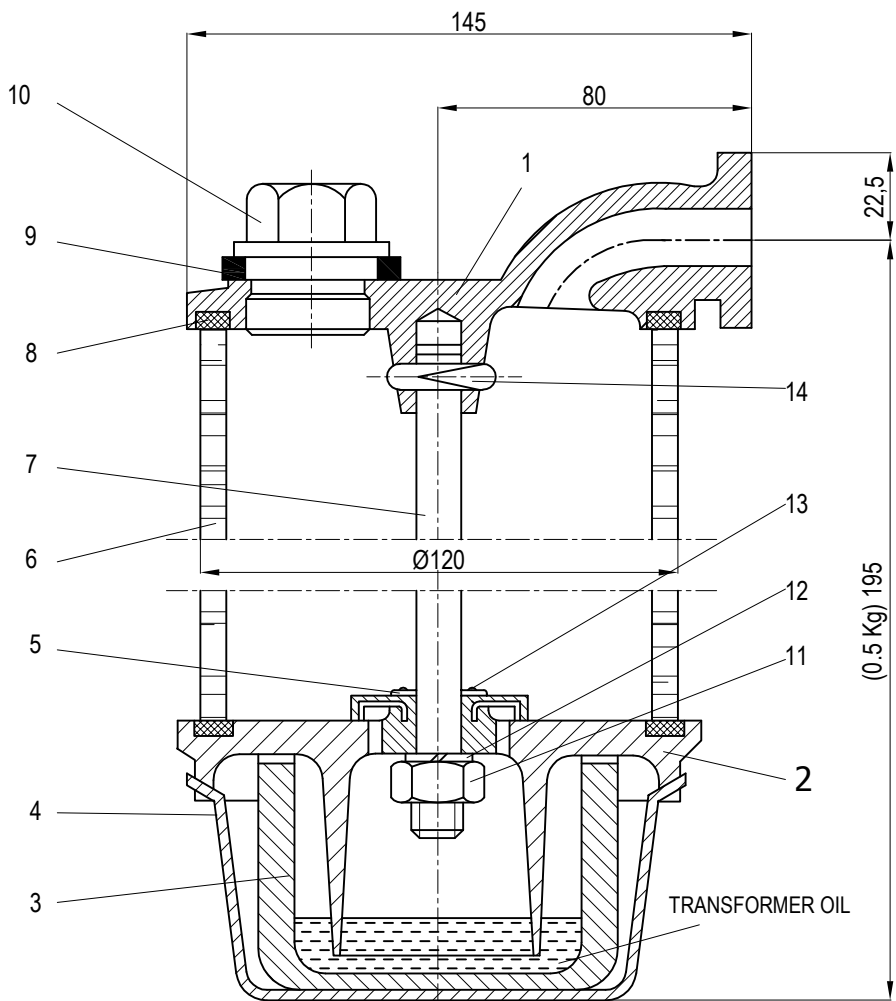
OPERATION PRINCIPLE

When the transformer gets air in, an air flow from and to the oil bowl occurs. The oil layer in the bowl prevents the dryer material from continuous contact with the damp external air and cleans the air flowing in. If the operation temperature of the transformer decreases, the volume of the isolation oil gets smaller. During this lessening, an amount of air equal to the lessening amount is absorbed in to the oil bowl through air holes. This air then transfers to the expansion vessel and contacts with the oil layer. During this transfer, air contacts with the dryer material and leaves its moisture there. With the heating of the oil in the transformer tank, the air inside flows out from the opposite direction of the moisture holder.

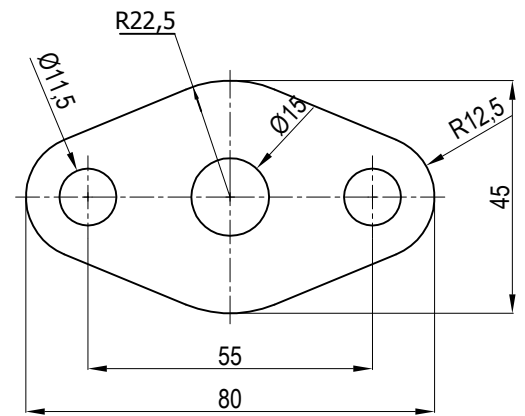
CAPACITIES

In the selection of the size of the moisture holders, various factors such as oil volume in the transformer, required life of the silica gel charge, operating cycle of the transformer, temperature and moisture contents of the ambient air should be taken into consideration by the transformer designer. For average operating conditions, the models and recommended transformer oil capacities are given in the following table;

TYPE / FORM	CODE NO	SILICAGEL CAPACITY (Kg)	TRANSFORMER OIL CAPACITY (Max.) (Kg)
MH 0,5 kg (DIN 42 567)	FORM A	611A	0.5
	FORM B	611B	
	FORM C	611C	
MH 1,0 kg (DIN 42 567)	FORM A	621A	1.0
	FORM B	621B	
	FORM C	621C	
MH 0.15 Kg	601B	0.15	600
MH 1.2 Kg (DIN 42562)	641	1.2	4500
MH 2.4 Kg (DIN 42562)	651	2.4	9000
MH 3.6 Kg (DIN 42562)	361	3.6	13500
MH 4.8 Kg (DIN 42562)	671	4.8	18000

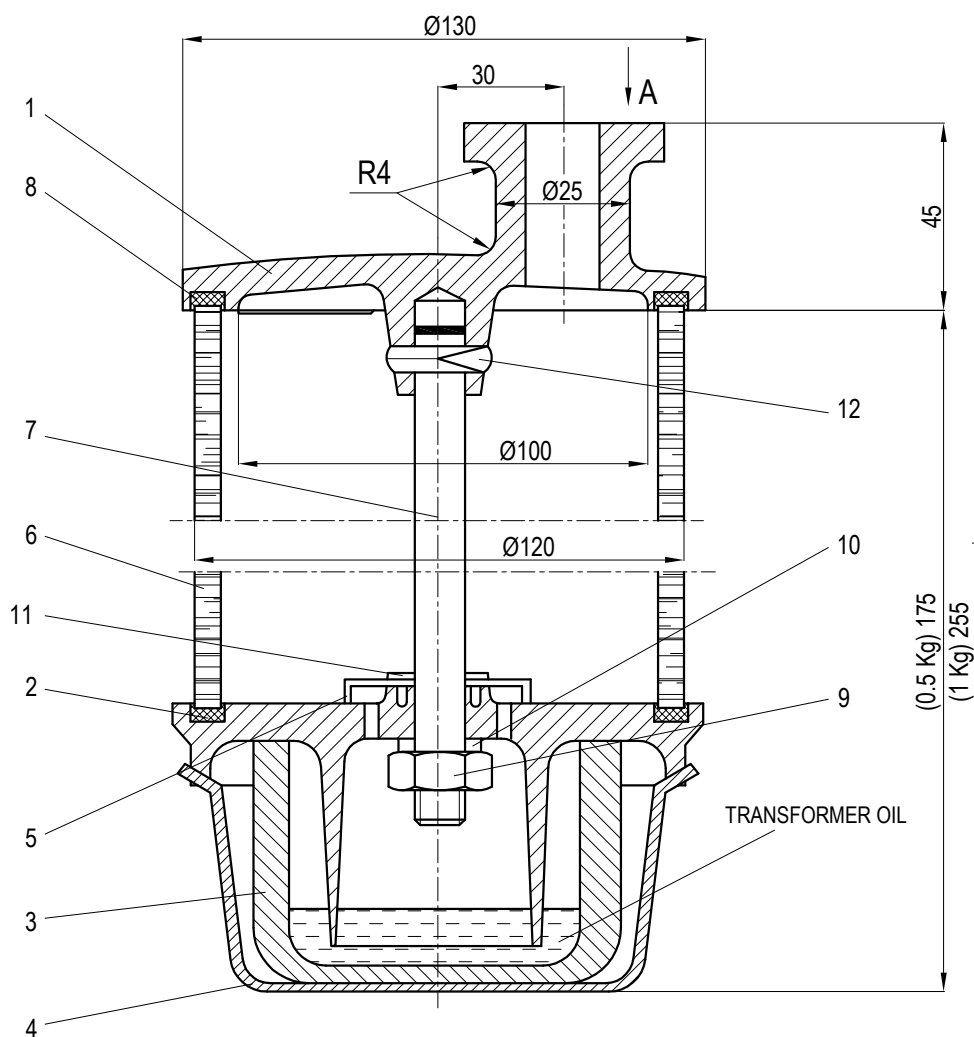


TYPE / FORM		CODE NO
MH 0,5 kg (DIN 42 567)	FORM A	611A
MH 1,0 kg (DIN 42 567)	FORM A	621A

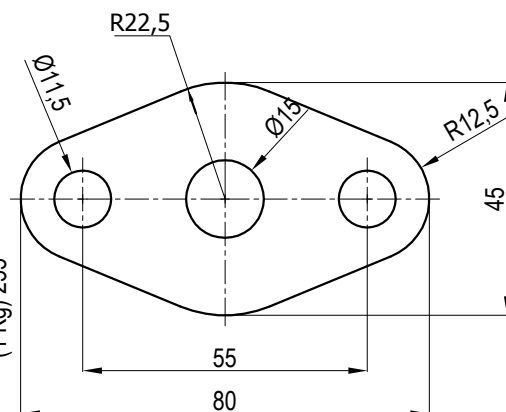


VIEW A

ITEM NO	QUANTITY		DESCRIPTION	SPECIFICATION
	0.5 KG	1 KG		
1	1	1	TOP SECTION	1 DIN 42567
2	1	1	BOTTOM SECTION	3 DIN 42 567
3	1	1	OIL BOWL	92X6X66 -3 DIN 42 567
4	1	1	HOLDER	5 DIN 42 567
5	1	1	SIEVE	45X1X6 - 5 DIN 42 567
6	1	--	GLASS CYLINDER	120X5X100-6 DIN 42 567
	--	1	GLASS CYLINDER	120X5X180-6 DIN 42 567
7	1	--	BRIDGING PLUG	12X125-7 DIN 42 567
	--	1	BRIDGING PLUG	12X205-7 DIN 42 567
8	2	2	GASKET	124X4X106 - 8 DIN 42567
9	1	1	GASKET	29X39X3 NBR
10	1	1	PLUG	R1" DIN 910
11	1	1	NUT	M12 DIN 934-4D
12	1	1	SPRING WASHER	B12 DIN 127
13	2	2	RIVET	2,3x5 DIN 1476
14	1	1	PIN	4x24 DIN 1471

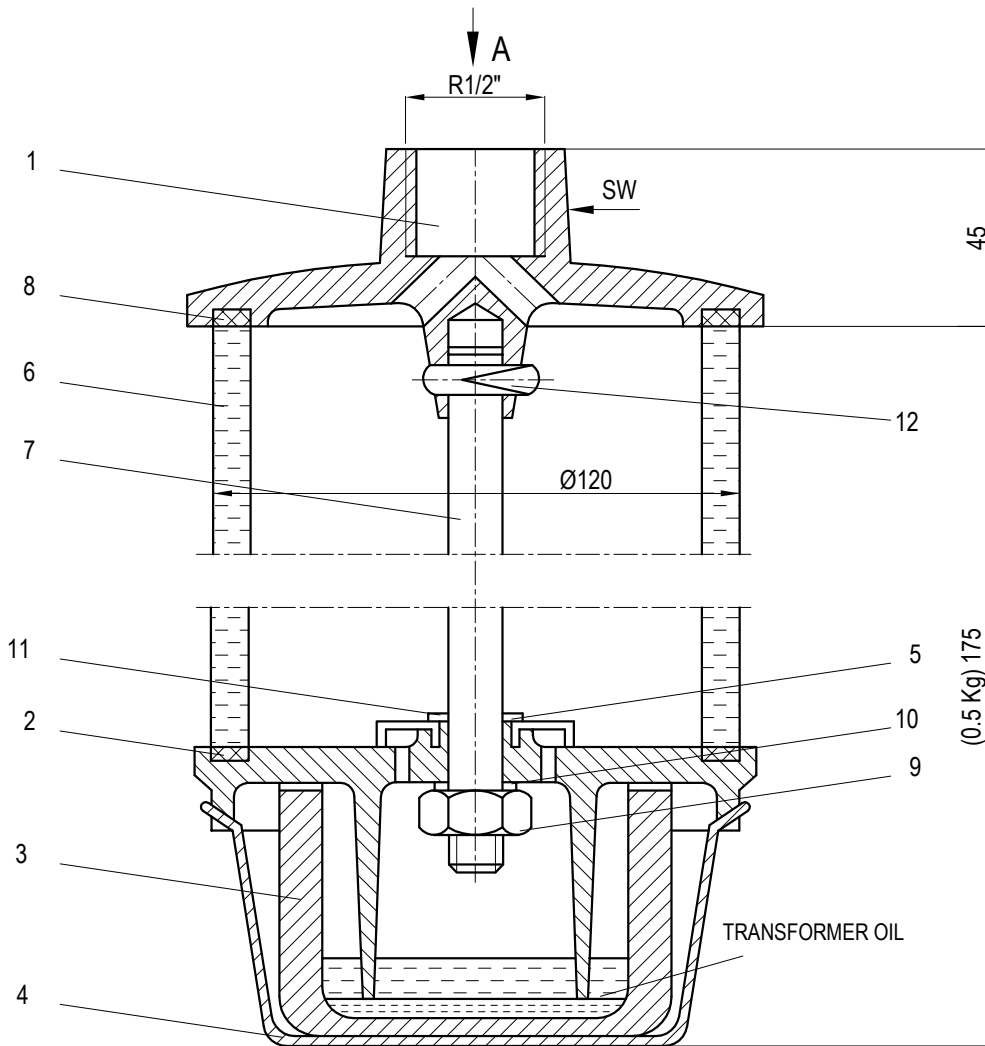


TYPE / FORM		CODE NO
MH 0,5 kg (DIN 42 567)	FORM B	611B
MH 1,0 kg (DIN 42 567)	FORM B	621B



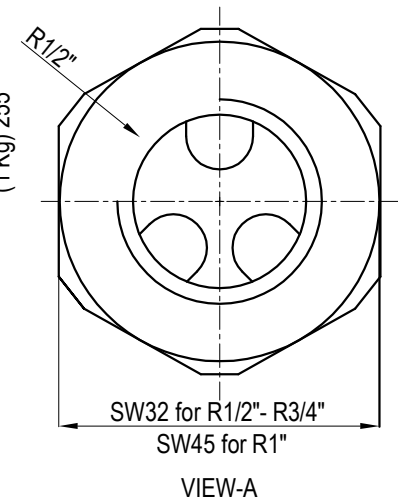
VIEW A

ITEM NO	QUANTITY		DESCRIPTION	SPECIFICATION
	0.5 KG	1 KG		
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3	1	1	OIL BOWL	92X6X66 -3 DIN 42 567
4	1	1	HOLDER	5 DIN 42 567
5	1	1	SIEVE	45X1X6 - 5 DIN 42 567
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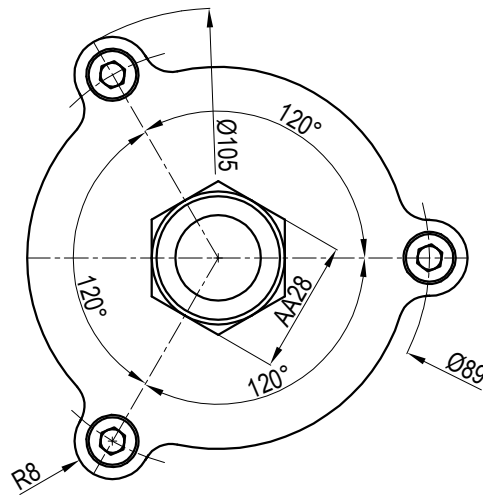
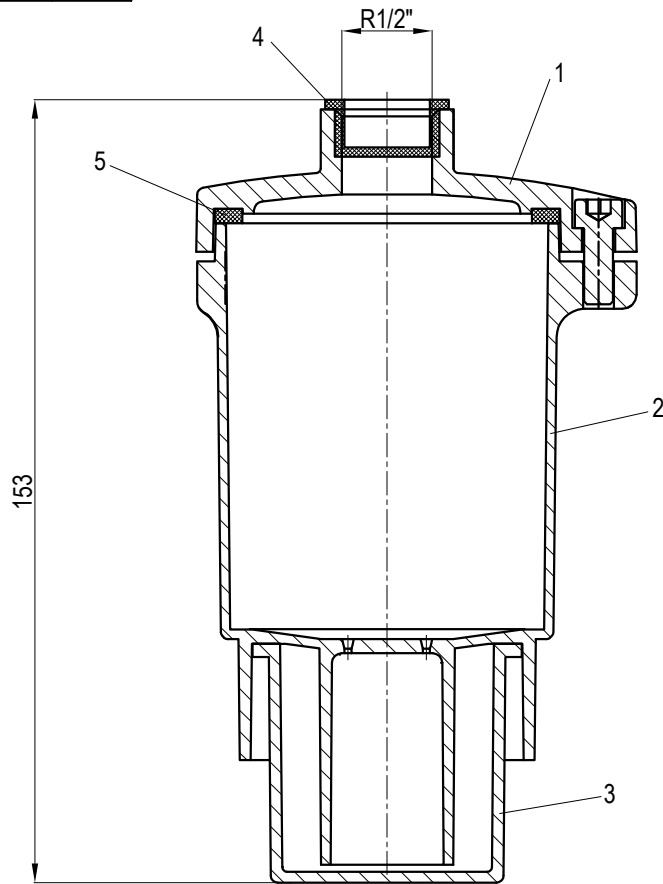
TYPE / FORM	CODE NO
MH 0,5 kg FORMC R ½"	611C
MH 0,5 kg FORMC R ¾"	6311C
MH 0,5 kg FORMC R 1"	6111C

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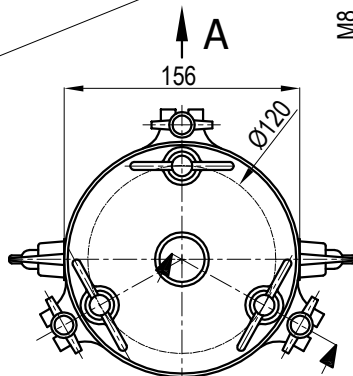
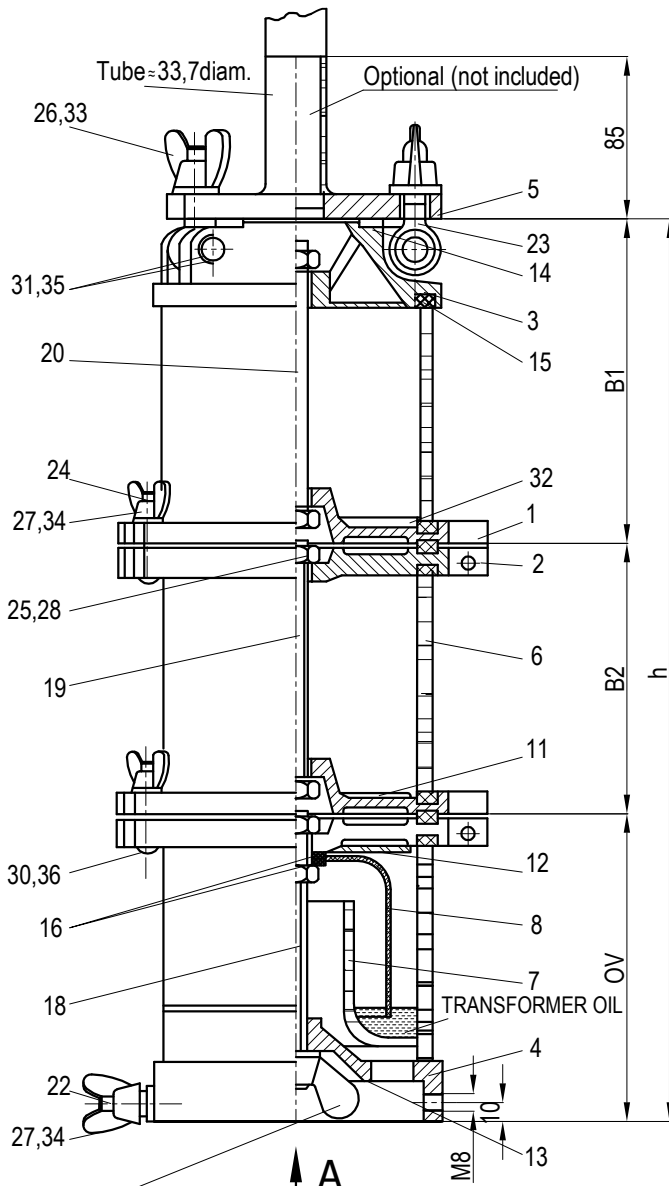
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TYPE / FORM	CODE NO
MH 0,15 kg R 1/2"	601B



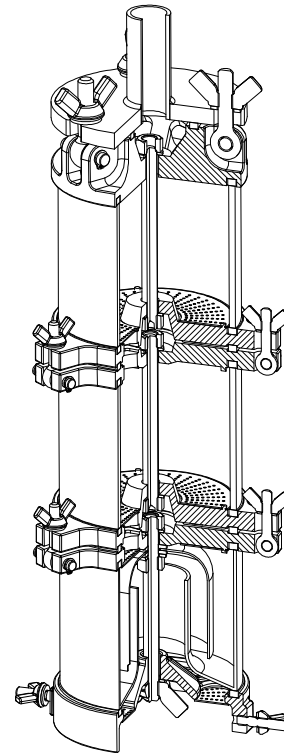
ITEM NO.	QUANTITY	DESCRIPTION	MATERIAL
1	1	Top section	Aluminum, powder painted
2	1	Cylinder	Polycarbonate
3	1	Oil bowl	Polycarbonate
4	1	Plug	Polyethylene
5	1	Gasket	Nitrile rubber

TYPE	MH 1.2 KG	MH 2.4 KG	MH 3.6 KG	MH 4.8 KG
CODE NO	641	651	661	671



"A" DETAIL

DIMENSION	L1	L2	L3	L4
SILICAGEL AMOUNT (kg)	1.2	2.4	3.6	4.8
HEIGHT (h)	342	489	636	783
WEIGHT OF MOISTURE HOLDERS WITHOUT SILICAGEL (NO FILLING)	9.2	12.6	16.3	20.0
ASSEMBLY GROUPS	B1	1	1	1
	B2	--	1	2
	OV	1	1	1



ITEM NO.	QUANTITY	DESCRIPTION	MATERIAL
1	2	PARTITION PLATE	DIN 42 562-1
2	2	PARTITION PLATE	DIN 42 562-2
3	1	TOP SECTION	DIN 42 562-3
4	1	BOTTOM SECTION	DIN 42 562-4
5	1	FLANGE	DIN 42 562-5
6	2	GLASS CYLINDER	DIN 42 562-6
7	1	OIL CONTAINER	DIN 42 562-7
8	1	DOME	DIN 42 562-8-ALUMINUM
11	2	PERFOTED PLATE	DIN 42 562-11
12	1	PERFOTED PLATE	DIN 42 562-12
13	1	PERFOTED PLATE	DIN 42 562-13
14	1	GASKET	DIN 42 562-14
15	8	GASKET	DIN 42 562-15
16	2	GASKET	DIN 42 530-M1-250
18	1	BOLT	M12x150-A2.70
19	1	BOLT	M12x130-A2.70
20	1	BOLT	M12x140-A2.70
22	2	STUD BOLT	DIN 939-M8x30-A2.70
23	3	EYEBOLT	DIN 444-BIM 12x55
24	6	EYEBOLT	DIN 444-BIM 8x40-A2.70
25	5	HEXAGON NUT	DIN 934-M12-A2.70
26	4	WING NUT	DIN 315-M12-A2.70-C
27	8	WING NUT	DIN 315-M8-A2.70-C
28	6	SPRING WASHER	B 12-nr St
29	13	GROOVED PIN	2.5x5-5CrNi 1911
30	12	CIRCLIPS	DIN 471-8x0.8-nrSt
31	6	CIRCLIPS	DIN 471-10x1-nrSt
33	3	WASHER	DIN 125-B 13-nrSt
34	8	WASHER	DIN 125-B 8.4-nrSt
35	3	STUD	DIN 42 562-35
36	6	STUD	DIN 42 562-36

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ELKOM SDN. BHD. (271815-D)

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