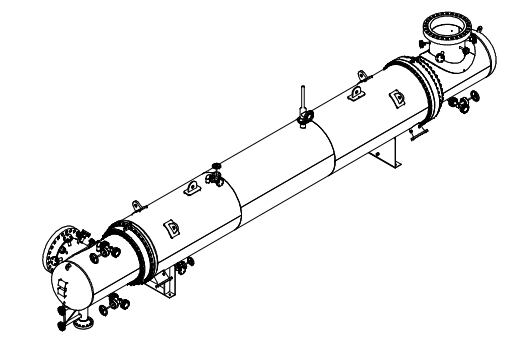


Ansicht/ view A  
gilt als Bauteilanordnung  
layout of components



Das Anziehen der Schrauben der Apparateflanschverbindungen erfolgt über Kreuz mit einem Drehmomentschlüssel in 3 Stufen  
tighten the bolts of the flange connection with a torque wrench in 3 steps  
Schrauben und Muttern mit Metalfux-Paste behandeln  
screws and nuts to be greased with metalfux before assembling

Pos./ item 13, 14 1. Stufe/ step: Me= 700 Nm 2. Stufe/ step: Me= 1100 Nm 3. Stufe/ step: Me= 1400 Nm  
Pos./ item 9, 11 1. Stufe/ step: Me= 100 Nm 2. Stufe/ step: Me= 150 Nm 3. Stufe/ step: Me= 200 Nm

Abmaße und Toleranzen nach TEMA Section 2  
measurements and tolerances acc. TEMA Section 2

Vor dem Versand ist der Wärmetauscher von inneren und äußeren Verunreinigungen zu säubern und zu entleeren.  
Prior to shipping the vessel must be free from impurities and residus and all internal parts must be drain

Kennzeichnung nach/ marking acc. to IUG 116  
Schweißnahtkennzeichnung nach/ weld seams marking acc. to ASME Sect. VIII U37(1) (3)FuL: 1000mm

Tragösen GS, G6 nur zum waagerechten Transport des leeren Apparates  
lifting lugs GS, G6 for horizontal transport of the empty exchanger only  
max. Tragfähigkeit beider Tragösen: 185 kN  
max. load capacity of both lifting lugs: 185 kN

Tragösen G7-11 nur zum Transport der Kammer/ Ring  
lifting lugs G7-11 for transport of the chamber/ ring only  
max. Tragfähigkeit pro Tragöse: 19 kN  
max. load capacity per lifting lug: 19 kN

Entlüftungslücher 1/4"NPT vor dem Versand mit Stopfen verschließen  
ent holes 1/4"NPT shall be locked with akrew plug before shipment

Alle offenen Stutzen sind mit Dichtung, Deckel, Schrauben und Muttern zum Transport zu verschließen  
all open nozzles are to be closed for transport with gasket, cover, nuts and bolts

Bemaßung: Zoll [mm]  
measurement: inch [mm]

Apparatgewichte / WEIGHTS	
Bündelgewicht BUNDLE WEIGHT	7450 kg x 50 kg
Leeggewicht EMPTY WEIGHT	15300 kg x 100 kg
Gewicht mit Wasser WEIGHT FULL OF WATER	25130 kg x 200 kg
Verdichtgewicht SHIPPING WEIGHT	15500 kg x 200 kg

Zulässige Stutzenbelastung Permissible forces and moments	
Stutzen nozzle	FR FL FU MR ML MU
FR	KN
FL	KN
FU	KN
MR	kNm
ML	kNm
MU	kNm
N1/N2	8,76 / 7,01 / 3,32 / 2,68 / 2,68 / 5,38
N3	14,68 / 11,75 / 5,91 / 4,5 / 4,5 / 8,92
N4	14,68 / 11,75 / 5,91 / 4,5 / 4,5 / 8,92
N5	0,7 / 1,2 / 2,35 / - / - / -

Oberflächenschutz / Protective coating	
MAN Dsk.: 1000125473 / 10001671391	SA 2 1/2 ISO 8501-1
Stahntrostschutz / jet derusting	
Grundanstrich / prime coat	2K-EP Zinkstaub 80
1. Zwischenanstrich / 1st intermediate coat	2K Eisenglimmer 100
2. Zwischenanstrich / 2nd intermediate coat	-
Deckanstrich / top coating	2K Polyurethan 60
RAL 7030	
VA-Selle beizen und passivieren/ stainless steel parts pickle and passivate	

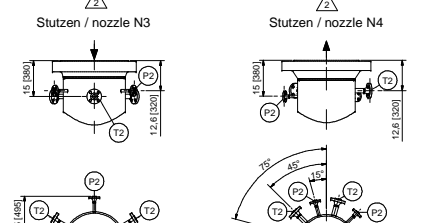


CERTIFIED BY  
**AEL**  
AEL APPARATEBAU GMBH LEISING  
DOBELNER STRASSE 9  
04703 LEISING - GERMANY

U  
W  
RT13-S  
RT4-T

SHELL-SIDE MAWP 145 PSIG AT 212 F  
MDMT 0 F AT 145 PSIG  
TUBE-SIDE MAWP 652 PSIG AT 248 F  
MDMT 0 F AT 652 PSIG  
SN ?) YEAR 2015

\*) 141141  
141167  
141170



T2	3	1 1/2"	800P	RF	WN	1.9 x 0.145 x 4 (48.3 x 3.68 x 101)	1.9 x 0.145 (48.3 x 3.68)	-	-
temperature measuring point	1	1	1/4"NPT			1.05 x 0.113 x 3.9 (26.7 x 2.87 x 100)	1.05 x 0.113 (26.7 x 2.87)	-	-
temperature measuring point	2	1/2"NPT				2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	1	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	2	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	3	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	4	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	5	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	6	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	7	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	8	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	9	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	10	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	11	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	12	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	13	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	14	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	15	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	16	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	17	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	18	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	19	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	20	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	21	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	22	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	23	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	24	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	25	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	26	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	27	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	28	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	29	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	30	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	31	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	32	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	33	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	34	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	35	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	36	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	37	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	38	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	39	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	40	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	41	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	42	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	43	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	44	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	45	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	46	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	47	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	48	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	49	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	50	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	51	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	52	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	53	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	54	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	55	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	56	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	57	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	58	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	59	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	60	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	61	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	62	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	63	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	64	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-
pressure measuring point	65	1"	800P	RF	WN	2.375 x 0.154 x 17.7 (60.3 x 3.91 x 442)	2.375 x 0.154 (60.3 x 3.91)	-	-