

Load Data

Z = Vertical load in Z-direction
X = Horizontal load in X-direction (Shaft axis)
Y = Horizontal load in Y-direction (perpendicular to shaft axis)

Wz = Alternating load vertical
Wy = Alternating load horizontal in Y-direction

These alternating loads only occur with corresponding unbalances and pulsate with the frequency $n_u = 745 \text{ rpm}$.

Max. load out of dead load, op. and trouble cases

All values in kN (10kN = 1000kg = 1t)					
Foundation	Fan in operation				
	X	Y	Z	W _x	W _y
B1			80	+50	±
B2	5		80	+50	±
B3			125		
B4			80	+136	
B5			125		
B6					

The following should be observed when the foundation is designed

from $f = 8,69 \text{ Hz}$ to $f = 16,14 \text{ Hz}$
 $f = 12,42 \text{ Hz}$

Seismic load (0,3 g)				
All values in kN (10kN = 1000kg = 1t)				
Foundation area	Fan in operation			
	X	Y	Z	Wz
B1	+25	+25	+20	
B2	+25	+25	+20	
B3	+30	+30	+5	
B4	+25	+25	+30	
B5				

Design : 1 x as drawn $\hat{=}$ L (VDMA)

Data of fan

Motor

Weights

$\eta = 366.5 \text{ m}^3/\text{sec}$	$P_w = 1800 \text{ kW}$	rotating parts	13300 kg
$t = 240 \text{ deg C}$	$n_w = 739 \text{ rpm}$	housing	16500 kg
$t_{\text{max}} = 300 \text{ deg C}$		suction box	8200 kg
$\Delta p^2 = 3783 \text{ Pa}$		bearing support	3200 kg
$n = 745 \text{ rpm}$		drive engine support	
$n_{\text{max}} = 750 \text{ rpm}$		thrust plate	3000 kg
$n_{\text{min}} = 1528 \text{ rpm}$		expansion joint	1800 kg
$S_{\text{max}} = \dots \text{ kW}$		sound insulation	---
$\text{Ind} 25 \text{ GPa} = 5800 \text{ km}^2$		drive engine	13800 kg
(referred to engine shaft)		59000 kg	

Attention

The indicated weights do not include additional loads for the calculation of foundation. These additional loads must be calculated by the manufacturer of the foundation, considering the fan speed and if necessary the temperature of the medium handled. The fans must not be charged by the ducts. Therefore the suction and discharge ducts are to be connected by expansion joints.



Tolerierung Tolerated	Allgemeintoleranzen für Maße ohne Toleranzangaben General tolerances: Tolerances for dimensions without individual tolerance indications ISO 2768-mS/ ISO 2768-1A/ EN ISO 17025-AE/ DIN 2310-1/ DIN 69128-m/ DIN 8083-GT/ISO/ DIN 8084-1/ DIN 1595-GT/ISO/ DIN 1686-G/ISO
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B	EXPANSION JOINTS UPD.	01/01/2006	STORM	08/01/2006	SALER	08/01/2006	SAL
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A	MOTOR, SUCTION BOX DIMENSIONS	01.11.2005	STORM	13.01.2006	KOCH	13.01.2006	KOCH
A	Underupphet	Gulm Gulm	Nama Nama	Gulm Gulm	Gears/ff Gears/ff	Gulm Gulm	Frese Frese

1. NAME	2. DATE	3. TIME	4. NAME	5. LOCATION	6. PHONE
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ART 11 COPYRIGHT ACT ART 1 IN UNFAIR COMPETITION ACT ARTS 322 AND 323 CODE ART 8 PATENTS ACT 1

(DARS) TELLUNG / REPRESENTATION	BEARBEITET Prepared	GEPRÜFT Checked	Freigegeben Release	 TLT-Turbo GmbH Am Weinberg 68
 DATUM	01.11.2005	01.11.2005	01.11.2005	

PROJEKTIONSMETHODE: FIRST ANGLE PROJECTION	DATE Datum	01.11.2003	04.11.2003	04.11.2003	 Hochschule Mittelhessen University of Applied Sciences D-36251 Bad Hersfeld
NAME Name	STORM	SAILER	SAILER		

LR/PRLN	Original S&P FUR	Replace for PROPD-ZCH-NR	Foreign No	Material-NR	Material-Add KS-NR	EXS-

HA/15 TAB SCALE 1:40	BENENNUNG / Description General Arrangement Drawing	AUSFÜHRUNG TLT - GB I
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144Z	Compound Operation Fan Type: 1444Z/2052	Reference: 1444Z Model: 1444Z/2052
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ALFTRAG-NR	KEINWORT / Code	BAUGR	ZUGKUNDES-IDENT-NR Ident-Nr
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13	14	15	16
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