

The EJOT
DELTA PT®
 Fastener
 Predictable
 performance improvement
 for thermoplastics

DELTA CALC

Report

project

project:	<input type="text"/>		
customer:	<input type="text"/>		
contact person:	<input type="text"/>		
adress:	<input type="text"/>		
phone:	<input type="text"/>	fax:	<input type="text"/>
e-mail:	<input type="text"/>		

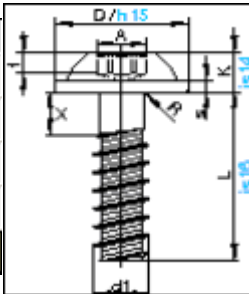
Contact person

name:	<input type="text" value="Russell D. Hendee"/>
phone:	<input type="text" value="682-286-1020"/>
e-mail:	<input type="text" value="rhendee@semblex.com"/>

Warranty: Our application engineering advice and all information is provided on the basis of today's state of technology. You are receiving information on our products and their methods of application. Certain characteristics or the qualification for certain application purposes cannot be guaranteed. As there may be different fastening criteria between our laboratory tests and your serial application, we recommend to check our indications for your special application. We kindly ask you to understand that our statements are without obligation and that we cannot give a guarantee for correctness.

screw

name (shortcut)	unit	value
screw / material		DeltaPT [PT10]
head style		WN 5451
under head profile		---
thread diameter (d1)	[mm]	5
head diameter (dk)	[mm]	11



inputs

name (shortcut)	unit	input	value
load carrying ability		dynamic stress	
boss load		pressure load	
penetration depth (te)	[mm]	10	8 >= te <= 12,5
clamp load (Cl)	[kN]	1,5	
axial operating load (Fa)	[kN]	1	
screwdriver speed	[rpm]	500	
screwdriver tolerance	[%]	5	
temperature relaxation	[°C]	80	max: 100
relaxation time	[h] / [YY]	100	0,0114

boss

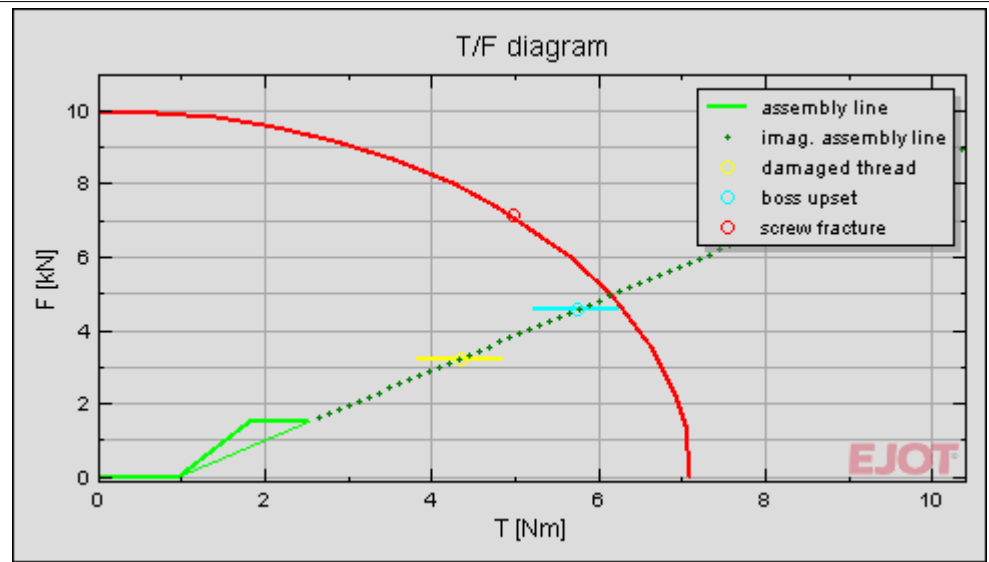
name (shortcut)	unit	value
material		PA 6
trade name		Ultramid B3L
hole diameter (db)	[mm]	4
external boss diameter (dT)	[mm]	10
counter-bore depth (ts)	[mm]	2
counter-bore diameter (dE)	[mm]	5,2
type of fastening		blind hole
μ thread/boss		0,12

clamping part

name (shortcut)	unit	value
material		Stahl / steel
trade name		
clamp thickness (lk)	[mm]	1,5
screw elongation length (ls)	[mm]	3,5
through hole diameter (dch)	[mm]	5,25
through hole type		round hole
μ head/clamping part		0,14

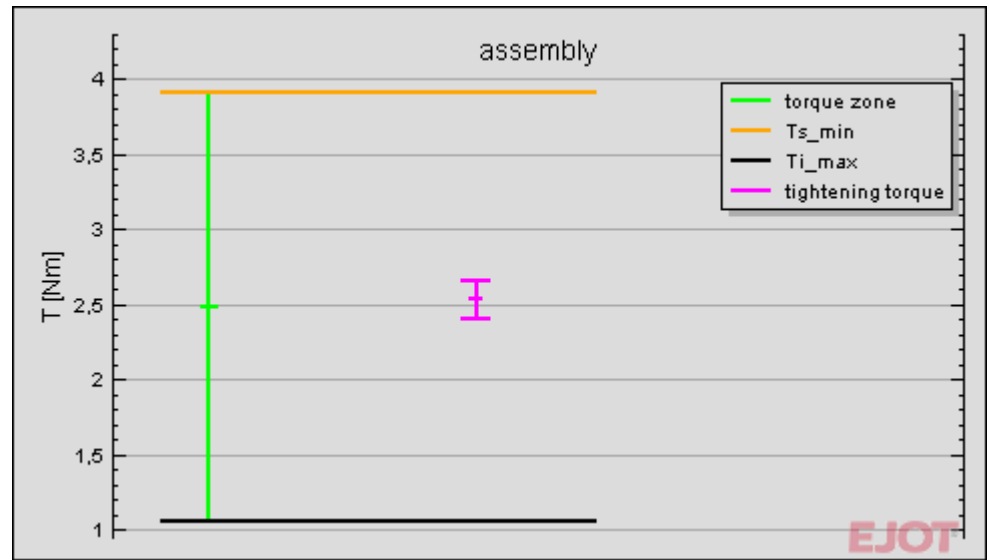
torque

name (shortcut)	unit	value
installation torque (Ti)	[Nm]	0.96
tightening torque (Tt)	[Nm]	2.53
stripping torque (Ts)	[Nm]	4.34
Cl at stripping torque	[kN]	3.23
Cl at screw fracture	[kN]	7.13
load change		permanent strength
load change numerically	[1x10 ⁸]	530861796340



assembly

name (shortcut)	unit	value
average tightening torque (Tt_avg)	[Nm]	2.53 (±0.13)
average clamp load (Cl_avg)	[kN]	1.5 (±0.12)
use of torque zone	[%]	52



tension

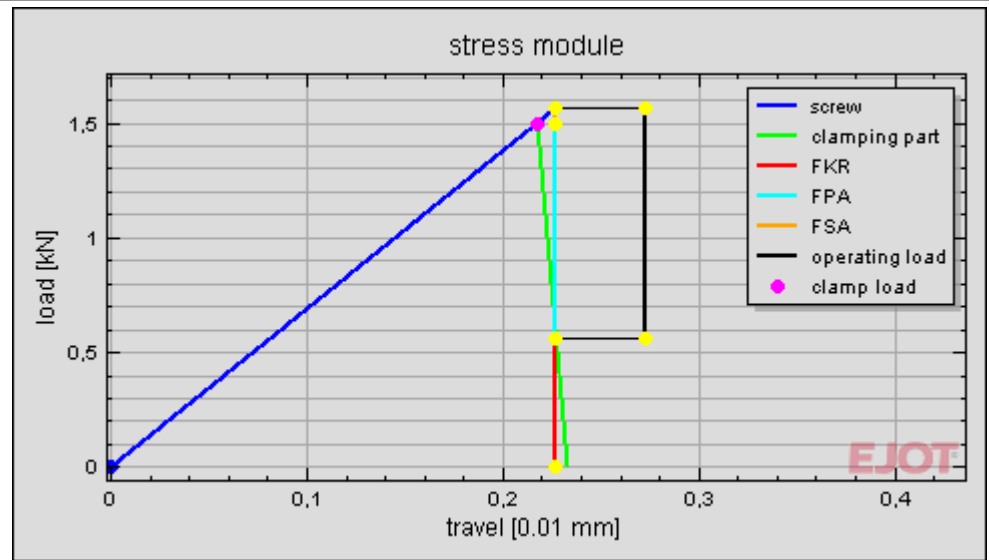
name	unit	value (no operating load)	max
tension thread	[N/mm ²]	45	80
tension head	[N/mm ²]	20	1000
tension counter-bore	[N/mm ²]	26	80

messages

register (variable)	message	register (variable)	message
inputs (penetration depth)		stress module	
inputs (operating load)		assembly (strip. torque)	
torque (inst. torque)		assembly (torque zone)	
torque (type of failure)		tension	

stress module

name (shortcut)	unit	value
CI + FSA	[kN]	1,56
clamp load (CI)	[kN]	1,5
remaining clamp load (FKR)	[kN]	0,56



relaxation

name (shortcut)	unit	value (no operating load)
remaining clamp load (CI)	[kN]	0,61
tension thread	[N/mm²]	18,32
tension head	[N/mm²]	8,35
tension counter-bore	[N/mm²]	10,77

