CalcsLive Plug for Inventor

Engineering-Driven Modeling (EDM) — Powered by CalcsLive Plug Server

Brings *Unit-aware Physical Quantities (PQs)* and *Live, Versatile Calculations* to Inventor
Streamlining the Entire **Engineering-to-Modeling** Workflow.

#	User Parameter	Equation	Comment+	PQ Mapping (CalcsLive)
1	BaseDia	16.00000000 in	Mapped to dt	dt = 16.000 in
2	TankHeight	24.00000000 in	Mapped to ht	ht = r * dt = 18 in
3	InletId	0.84000000 in	Mapped to do	do = 0.840 in
4	InletThicknes	0.10900000 in	Mapped to ti	ti = 0.109 in
5	LiquidDepth	16.00000000 in	Mapped to hw	hw = 16.000 in
6	TankThickness	0.25 in	Mapped to t	t = 0.250 in
7	InletProjecti	2 in	Add note...	

Inventor Model

File Name: cylinder-container.ipt
Type: User Parameters
Parameters: 7

Reload | Update 3D

CalcsLive Article

Article ID: 3MFYNE324-378
Title: Water Tank Sizing
Mappings: 6

Reload | New | Change

Water Tank Sizing

Article ID: 3MFYNE324-378 Total 18 PQs

#	Description	PQ Symbol	Value / Expression	Unit
1	q	q	3	gpm(US)
2	T	T	4	minute
3	Q	Q	q * T = 1.604	ft³
4	Tank Base Diameter (ID)	dt	16	in
5	Tank Body Thickness	t	0.25	in
6	Tank height to dia ratio	r	1.5	
7	Tank Inner Height	ht	r * dt = 18.000	in
8	Liquid in tank - Depth	hw	16	in
9	Liquid volume available	Qs	π * dt^2 / 4 * hw = 1.047	ft³
10	Inlet Pipe OD	do	0.84	in
11	Inlet Thickness	ti	0.109	in
12	Inlet Pipe ID	di	do - 2 * ti = 0.622	in
13	ρ	ρ	1000	kg/m³
14	Δp	Δp	2	bar
15	Cd	Cd	0.65	

Drag any PQ and drop onto "PQ Mapping" column to map it with 3D model parameters. The same PQ can be mapped to multiple model parameters.

Connected: cylinder-container.ipt

Show Params with PQ Mappings Only

CalcsLive