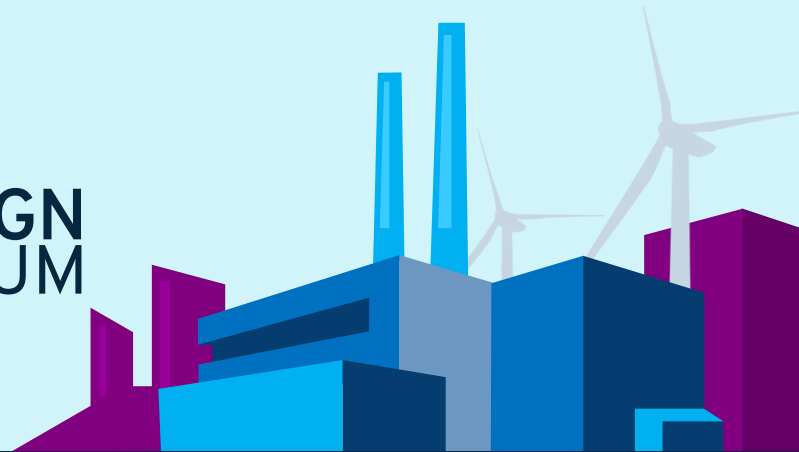




2022
INDUSTRI&DESIGN
FORUM



Optimere Design- & Projektphasen

AutoCAD Plant 3D & NTI Tools



NTI Autodesk Plant Design Team - DK



Sales Manager - Plant
Bjarne Thomsen



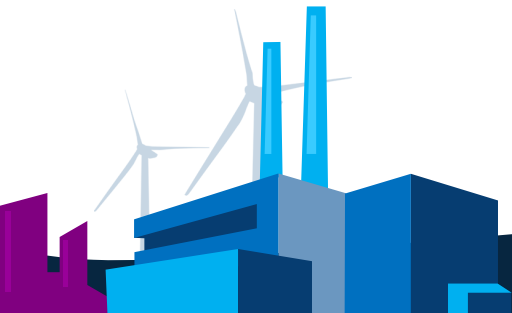
System Consultant
Per Damsgaard



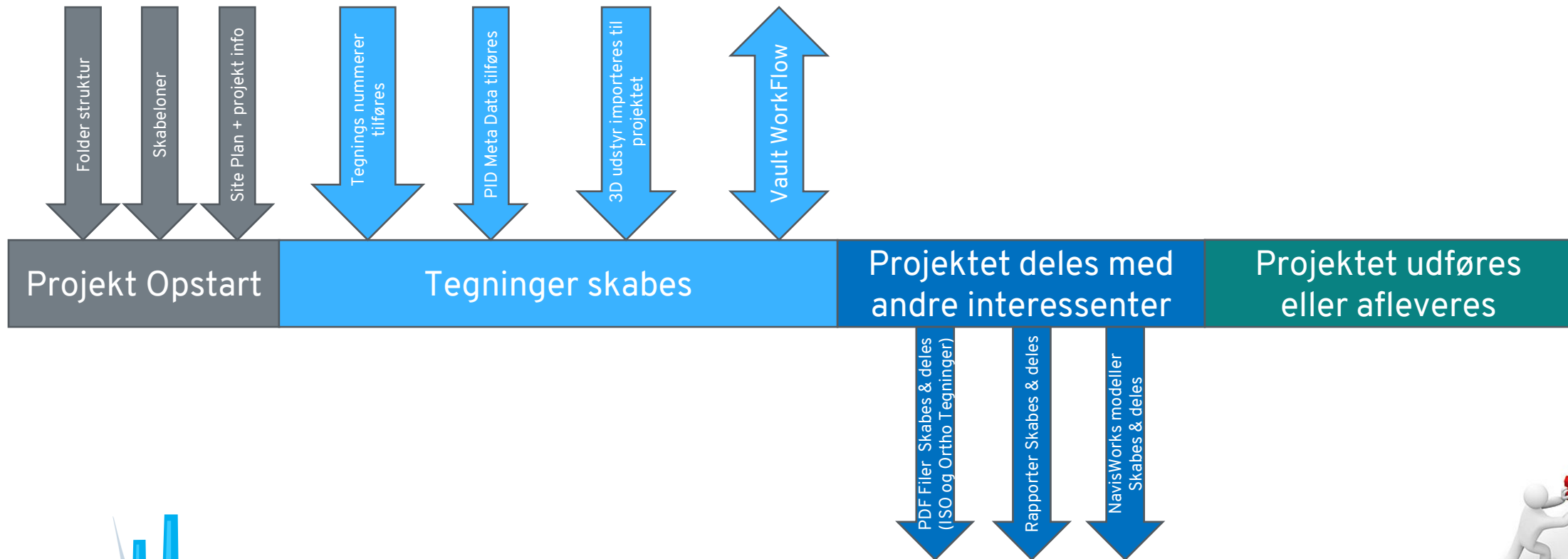
System Consultant
Michael Knudsen



System Consultant
Jørgen Olesen

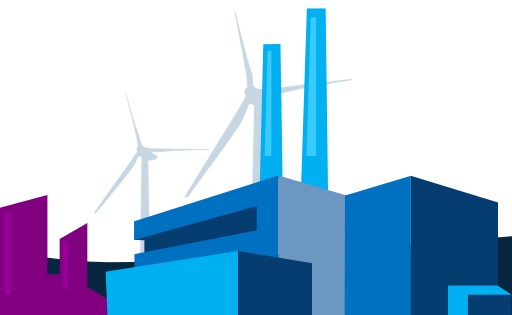


Design- & Projektfasen



Design- & Projektfasen

- Med AutoCAD Plant 3D har vi et godt design værktøj til Plant og Proces anlæg
- Med understøttende produkter fra Autodesk har vi en stærk palette af værktøjer til at understøtte designet af Plant og Proces anlægget i AutoCAD Plant 3D
- Ved hjælp af uddannelse får vi personale og kolleagere som mestre de forskelligt disipliner

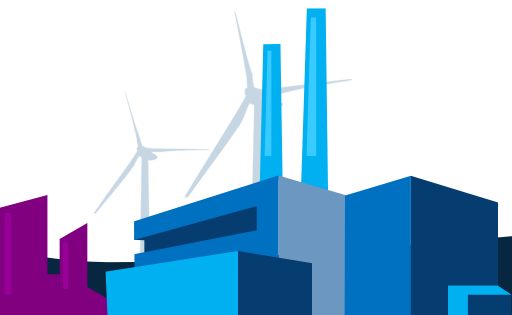


Alt er Godt



Har du dit fokus på osten?

- eller hullerne i osten?



Manuelt, Irriterende & tidskrævende!

Hvorfor ligger Viewporten oven på den yderste geometri på modellen

Smeden klager og kan (vil) ikke arbejde efter ISO rørtegninger

Det er besværligt at skifte tegnings størrelse og plot opsætning...

Man skal holde tungen-lige-i-munden når man skal godkende en plant tegning i Vault

Hvordan får vi komponent data ind på instrumenterne

Viewport på Ortho'er ligger sig på det aktuelle lag og bliver printet ud

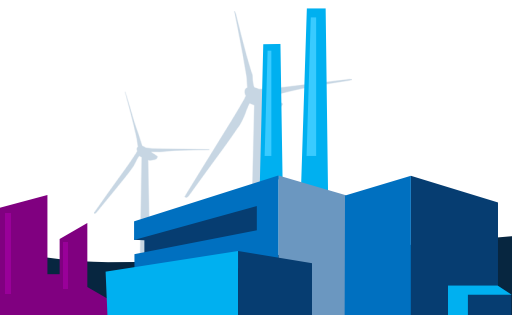
Det tager lang tid at udskifte et importeret Equipment i Plant 3D, bare fordi der kommer en revision af STP filen

Salg vil have noget visuelt med farver på arrangements tegningerne

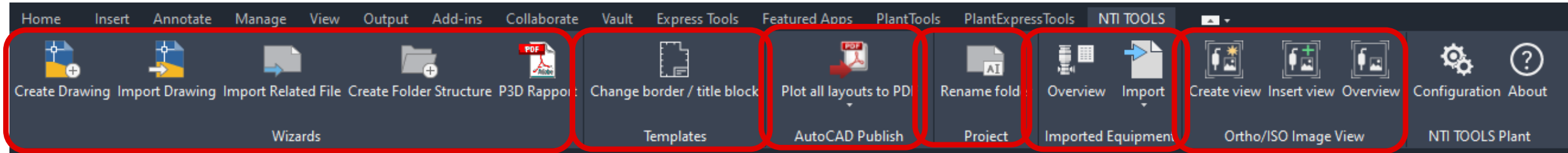
Hvorfor er de så besværligt at udtrække en rapport

Det er "omstændigt" at skabe en PDF og det skal jeg nærmest gøre hele tiden

Vault revisionsbogstav skal i tegningshovedet og i rapporter



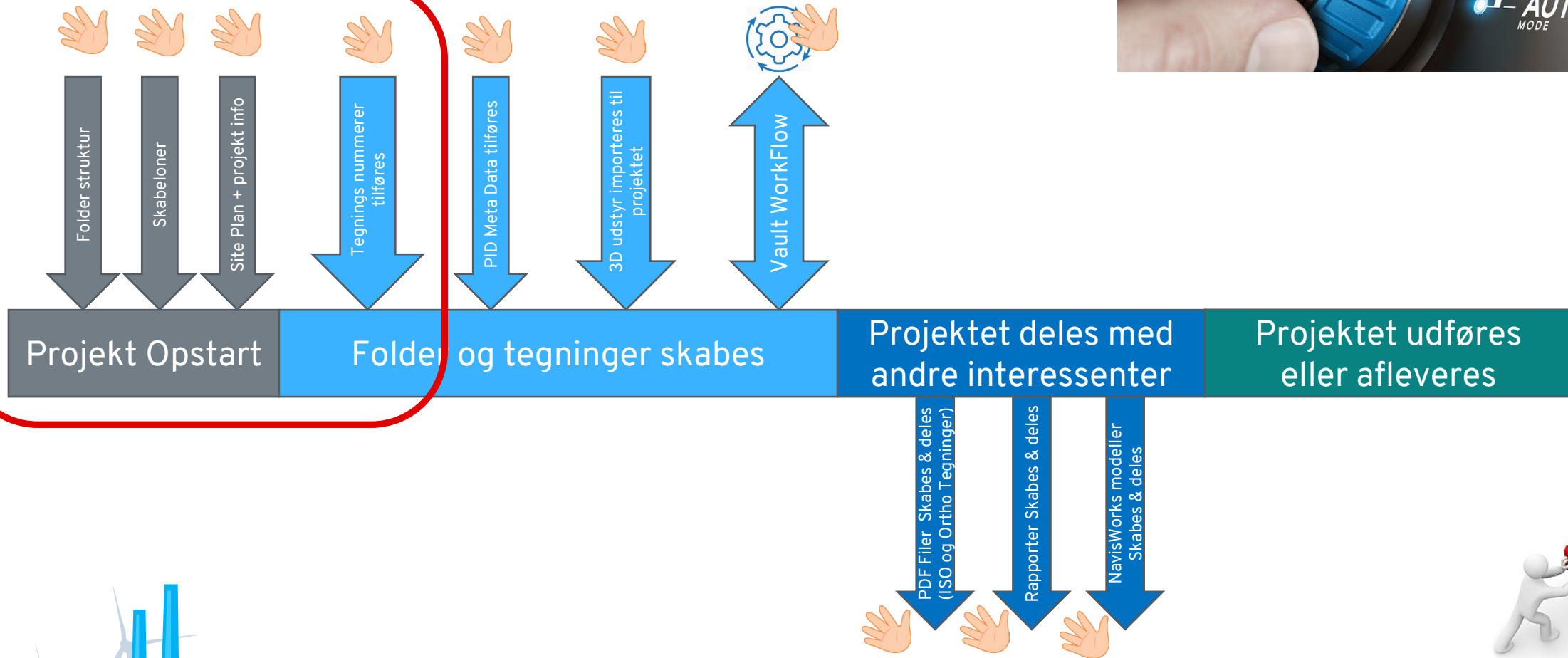
NTI TOOLS PLANT



- **Wizards**
 - Guiden til navngivning af filer og mapper og oprettelse / håndtering af propertyes
 - Nummer-skemaer fra Vault kan bruges.
- Nem og intuitiv håndtering af tegnings rammer og titelblokke
- **AutoCAD Publish**
 - Stærke og intuitive oprettelse af afledte filformater (PDF, DXF)
- Omdøb mappe
- Importet Equipment manager
- Ortho / ISO-grafisk understøttende funktioner
- Oprettelse og registrering af NWC-filer



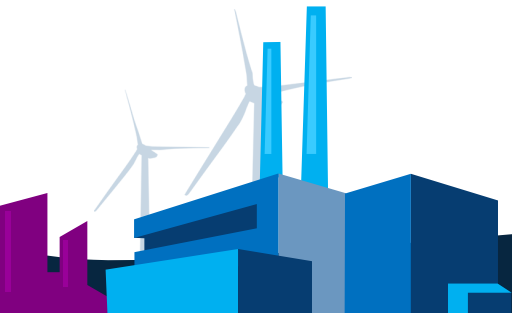
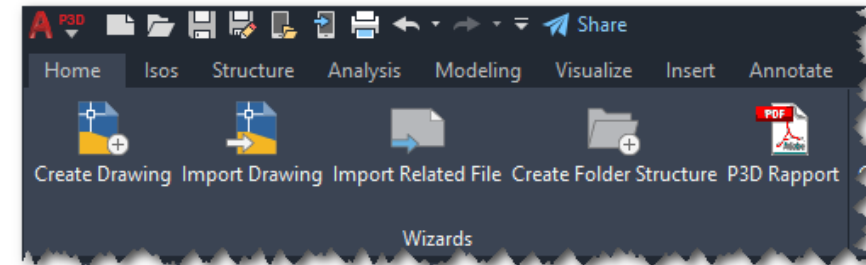
Design- & Projektfasen



NTI TOOLS DOCUMENT WIZARD

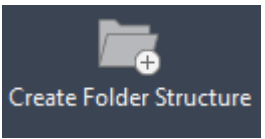
Kontrolleret oprettelse og navngivning af filer og mapper

- Opret filer og mapper i henhold til en række relevante spørgsmål
- Benyt unikt nummerskema eller brug eksterne numre / Vault Number-scheme
- Opret P&ID, 3D-modeller og ortho tegningsfiler
- Importer filer til projektet (P&ID, 3D-modeller, Ortho og releaterede filer)
- Opret en mappestruktur, løbende – eller en fast, foruddefineret mappestruktur
- Udfyld tegnings propertyes i Plant 3D-filer
- Opret forbindelse til eksterne datakilder, f.eks. ERP
- Styre tegnings templates, eller giv brugerne et valg
- Opretter P&ID- og Plant 3D-rapporter og gemmer dem i projektet



NTI TOOLS DOCUMENT WIZARD

Create Folder structure



Autodesk AutoCAD Plant 3D 2022 GA1-T1.dwg

Home Isos Structure Analysis Modeling Visualize Insert Annotate Manage Output Add-ins Collaborate Vault Featured Apps Express Tools **Ortho View** Layout PlantTools PlantExpressTools **NTI TOOLS**

Create Drawing Import Drawing Import Related File **Create Folder Structure** Plot first layout with a single title border Change border / title block Rename folder Overview Create view Insert view Overview Show All Configuration About

Wizards AutoCAD Publish Templates Project Imported Equipment Ortho/ISO Image View NTI TOOLS Plant

Folder Structure - PID

Folder Structure - Ortho

Folder Structure - P3D

Folder Structure - Related Files

Rapports, renamed to project No.

System Files / Templates

Support for BIM 360 and Vault

PROJECT MANAGER
Current Project: Project Folder Structure Sample

Project

- Project Folder Structure Sample
 - P&ID Drawings
 - Bottling
 - Maltning
 - Post Processing
 - Pre Processing
 - Storage
 - Weighing
 - Plant 3D Drawings
 - Bottling
 - Maltning
 - Post Processing
 - Pre Processing
 - Storage
 - Weighing
 - Pipe Specs
 - Related Files
 - Documentation
 - Function description
 - Navisworks Files
 - Project description
 - Reports
 - P&ID Reports
 - Plant 3D Reports
 - 2022-02-Common Drawinglist.pdf
 - System Files
 - PID MasterData
 - PID_Components_Master.udl
 - PID_Components_Master.xlsx
 - ReportTemplates
 - 3D BOM.rcf
 - Common Drawinglist.rcf
 - PID Itemlist Rev2.rcf

Orthos

Project Folder Structure Sample

- Orthographic Drawings
 - Bottling
 - Maltning
 - Post Processing
 - Pre Processing
 - Storage
 - Weighing

Item Value

Select project type

Brewery

- ☐ Dairy
- ☒ Brewery
- ☐ Margarine factory
- ☐ Water treatment

< Previous Finish Cancel

Version 24.0.1.5

C:\Users\...S\Plant\Aox_inj_File\ImportFolders.ini

PROJECT MANAGER
Current Project: Project Folder Structure Sample

Project

- Project Folder Structure Sample
 - P&ID Drawings
 - Plant 3D Drawings
 - Pipe Specs
 - Related Files

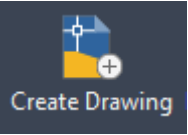
Orthos

Project Folder Structure Sample

- Orthographic Drawings

NTI TOOLS DOCUMENT WIZARD

Create Drawing



PROJECT MANAGER

Current Project:

Project NTi Plant Tools V2

Orthos

search

Project NTi Plant Tools V2

Orthographic Drawings

CIP

FU Maskine Piping-0001.dwg

123DOrtho

12ss

GA1-T1

Source Files

Orthographic DWG

Isometric DWG

Details

Status: File is accessible

Name: FU Maskine Piping-0001.dwg.dwg

File location: C:\Users\pdh\OneDrive - NTI A S\Dokumenter\Proj

DocFile_RevisionName: Unknown

Number: FU Maskine Piping-0001

File is locked by user 'pdh' on machine 'DKLAP1010 '

File size: 217,58KB (222,797 bytes)

File creator: PDH

Last saved: 15. september 2021 11:13:59

Last edited by: Unknown

Description: Pipe Design 1

Drawing Properties

General

DWG Number

FU Maskine Piping-0001

DWG Title

FU Maskine Piping-0001

Drawing Area

CIP

Author

PDH

Description

Pipe Design 1

Description

OK

Cancel

Help

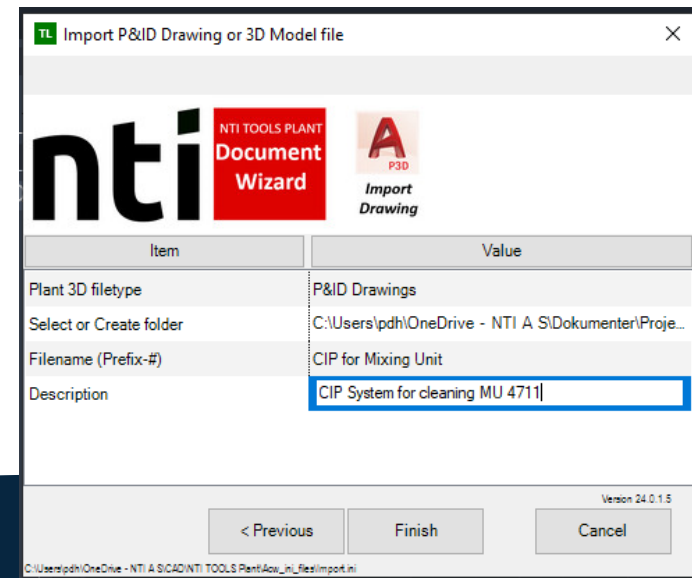
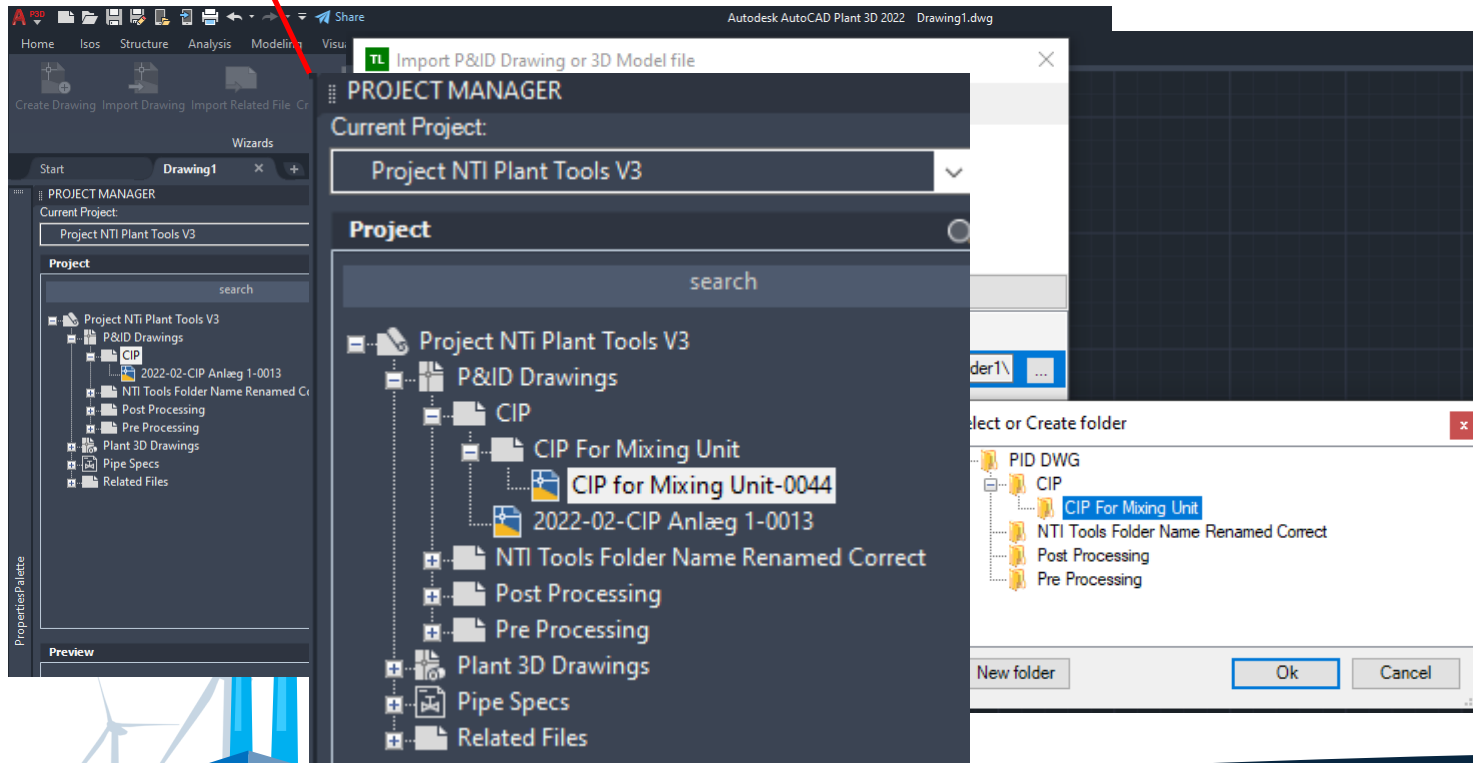
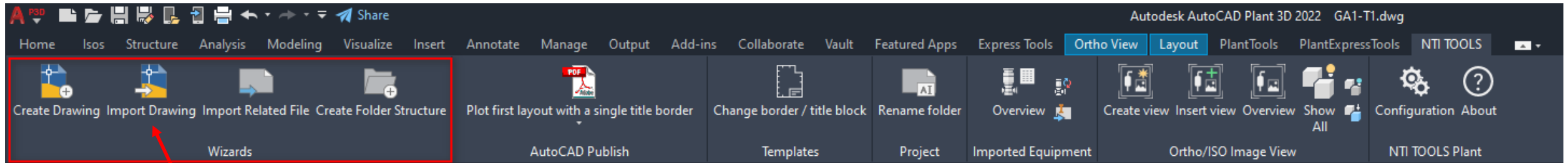
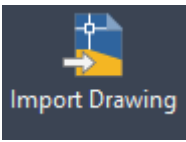
This drawing is the intellectual property of NTI A/S and may not be shown to third parties without our permission.		nti		NTI A/S Jens Ravns Vej 11B DK-7100 Vejle Denmark		Date:		Sign.:	
Pipe and steel member length in any part list are for guidance only and shall be checked before use as cutting length.						Created		15-09-21	
						Released			
						Approved			
						Project: 2022-02			
						Unit:			
						Drg. No.		Rev.	
						FU Maskine Piping-0001		####	

Last saved: 15. september 2021 11:13:59
Last edited by: Unknown
Description: Pipe Design 1

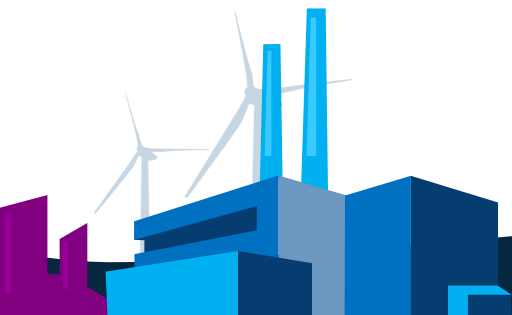
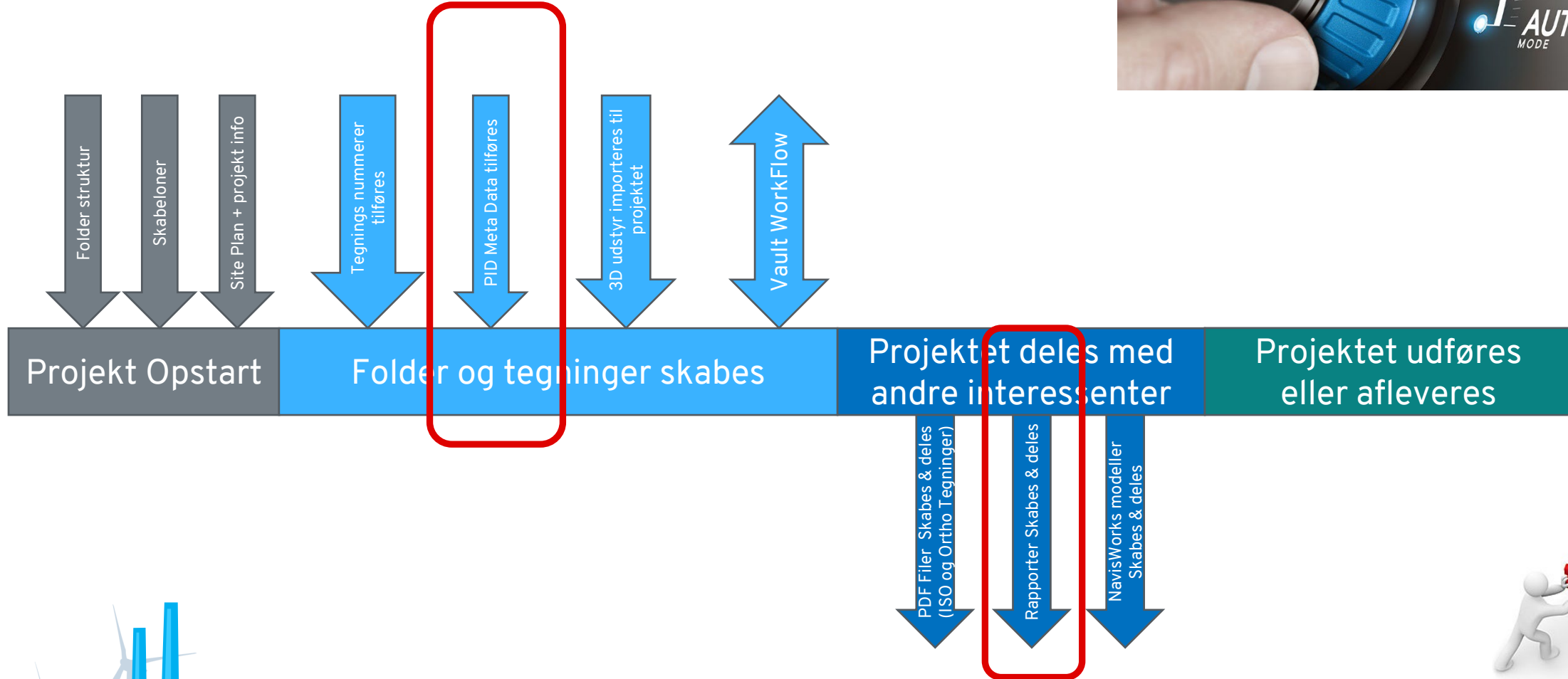


NTI TOOLS DOCUMENT WIZARD

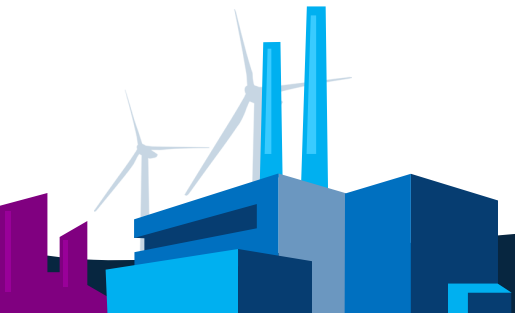
Import Drawing



Design- & Projektfasen



Komponent Data og Rapporter

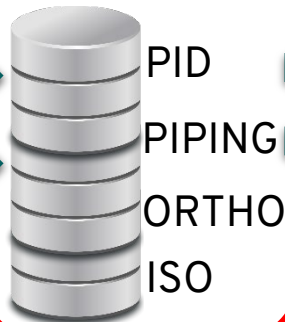


Data flow, eksternt

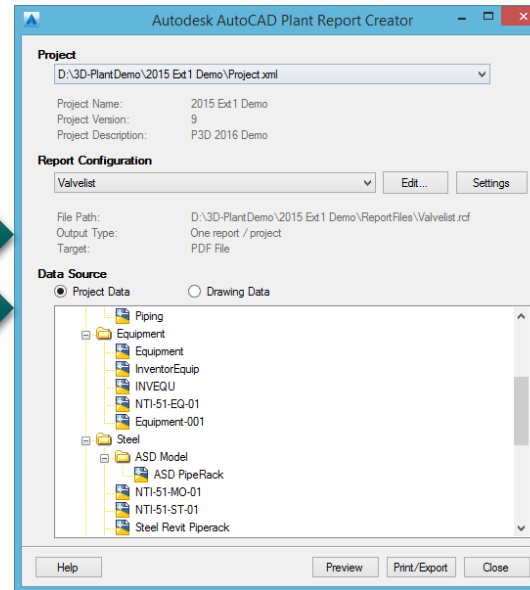
Arbejds-
regneark



PROJEKT



Autodesk AutoCAD Plant Report Creator



(u-licenseret)

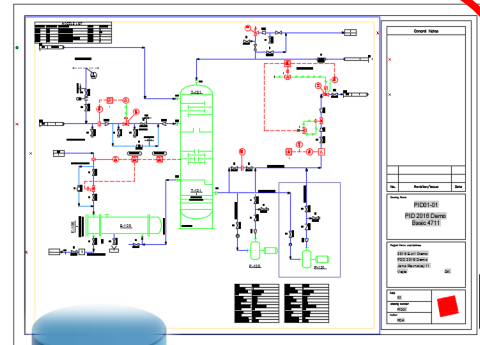
Output formater



Rapport eksempler:

- TAG list
- 3D Fixed Length Pipe
- 3D Parts (BOM)
- COGWeightReportByLineNumber
- COGWeightReportByObjects
- COGWeightReportBySpool
- Drawinglist
- Reducer Report
- WeightReportByLineNumber
- WeightReportByObjects
- WeightReportBySpool
- Weld Report
- Insulation Report
- CSW fil til Navision

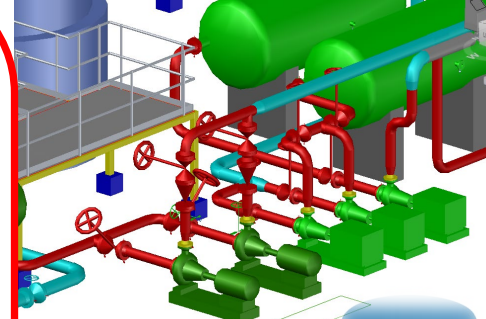
Hvor kommer "Rapport" data fra ?



P&I Diagram

Rapport eksempler:

- Komponent list(er)
 - Udstyrs list
 - Instrument list
 - Ventil liste
 - Motor liste
 - Forbrugs liste
 - Linje list
- Pumpe Datablad
- Reducer Report



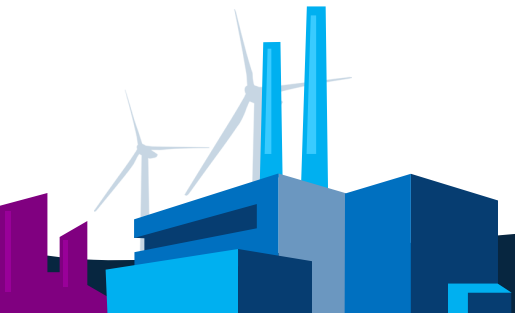
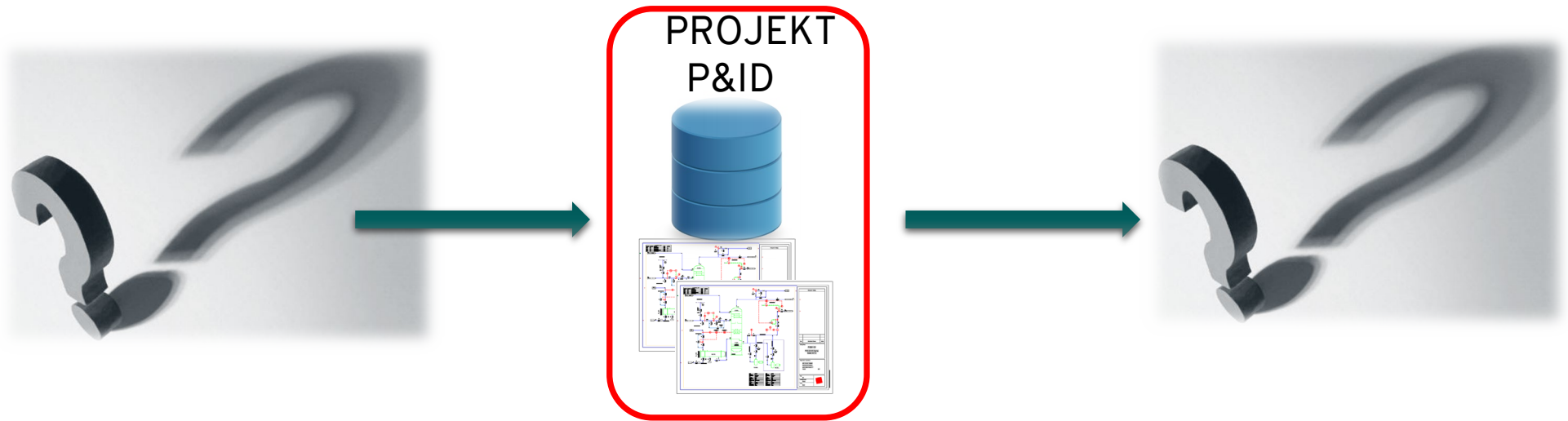
Layout

Rapport eksempler:

- 3D Parts (BOM)
- COG / Weight Report
- Weight Report
- Weld Report
- Insulation Report

Data flow !

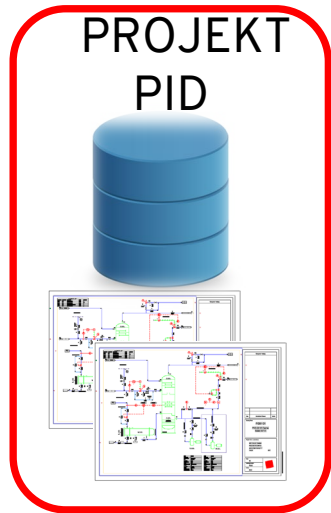
- Hvor fødes data ?
- Hvor skal data afleveres ?
- Hvilke data skal afleveres?



Data flow !

Hvilke data skal afleveres og hvordan?

Komponentliste som Excel



Automatisk lagring ☐ Project NTi Plant Tools V3-PID Component List.xls - Kompatibilitetstilstand α^8 • Senest ændret: ti kl. 16:27 Søg (Alt+Q) Per Damsgaard

Filer **Hjem** Indsæt Sidelayout Formler Data Gennemse Vis Hjælp Autodesk Vault MDOC NTI TOOLS

Fortryd Udsklipsholder f_x Skriftype Justering Tal Typografier

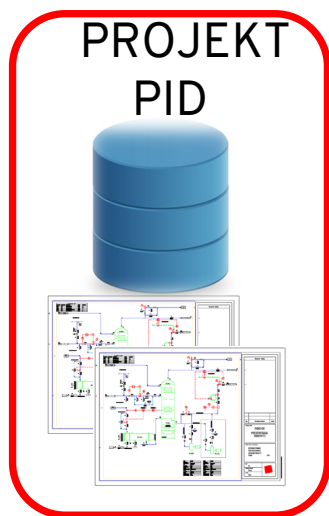
Calibri 11 A⁺ A⁻ Ombyrd tekst Flet og centrér Standard Betinget formatering Formater som tabel Normal God Neutral Ugyldig Advarselstekst Bemærk! Indsæt Slet Formater

nti **NTI A/S** 2022-02
Date: 01 November, 2022
Sign: pdh Project NTi Plant Tools V3
V3
ITEM LIST

Tag	Description	Type	NO/N C	Part no.	Connection (In/Out)	Purcase no.	Supplier	Comment	Name	DO	D I	A O	A I	3/ 2	4/ 2	I/P
7-7	FUNNEL															
1-TE-123	Pt100 temperaturføler	7400					PR Electronics									
1-TT-123	Temperaturtransmitter	PR5332A					PR Electronics									
-35.01.BL1																
-35.01.BL2	Level switch	QFS-30					Grundfos									
-35.01.BL3	Level switch	QFS-30					Grundfos									
-35.01.BP1	Rettes						HEEEP									
-35.01.BP2																
-35.01.BT2																
-35.01.FL1																
-35.01.FL2																
-35.01.FL3																
-35.01.GM1	ELECTRIC MOTOR															
-35.01.GP1	Forsyningspumpe	CRE3-8					Bdr. Dahl									
-35.01.H1	SCREW CONVEYOR							Husk at den skal være spejlvendt								
-35.01.HQ1	Bagfilter	4711-11 V32														
-35.01.MA1	ELECTRIC MOTOR															
-35.01.PG1	Thermometer	307690-001					Erik Færgemann 04-10-22-01									
-35.01.PG2	Thermometer	307690-001					Erik Færgemann									
-35.01.QM1																
-35.01.QM2																
-35.01.RM1			NO													
-35.01.RM2	Kugleventil-F	KV040-H	NO				Brd. Kier									
-35.01.RM3			NO													
-35.01.RM4			NO													

Data flow !

Hvor fødes data ?



PROPERTIES

ACPPASSET

Graphical style: Control Valve Style

General

PnPGuid: b0226c15-1e43-4746-92e3-0b0156883aba

Description

Manufacturer

Model Number

Supplier

Comment

Alt. Tag Number

Status

Dokumentation

Supplier ref no

Area: 20

Type: CV

Loop Number: 300

Location

Signal

AirPressure

Communicationtype

Voltage

IP Class

Wiring

DI

DO

AI

AO

Safety Zone

Internal State

Measuring Range

Setpoint

Item Code

Size: 8

End Connections

Valve Code: Unspecified

Normally

Failure

Body Type: Globe Valve

Actuator Type: Hand Wheel Actuator

Pressure Class

[+][Top][2D Wireframe]

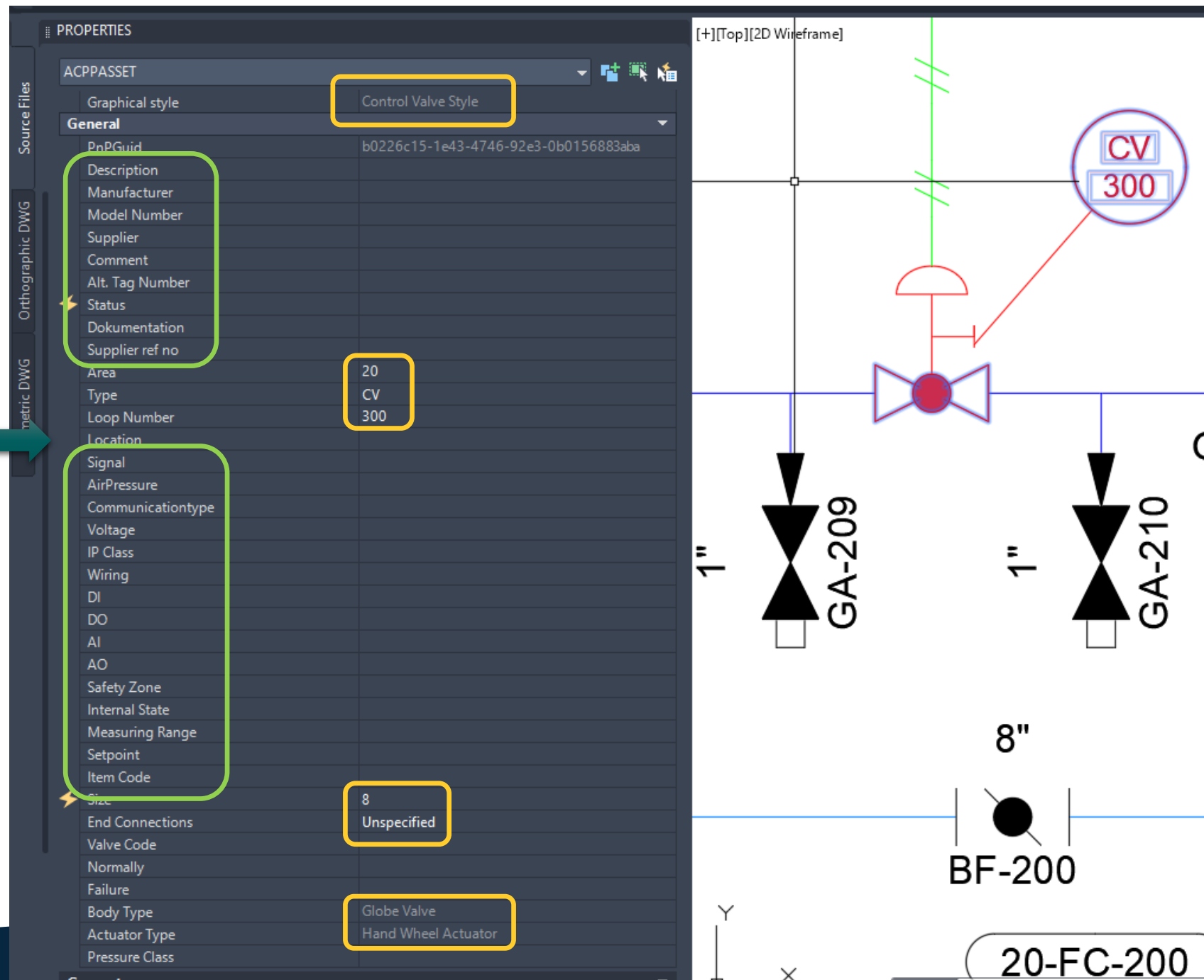
CV 300

1" GA-209

1" GA-210

8" BF-200

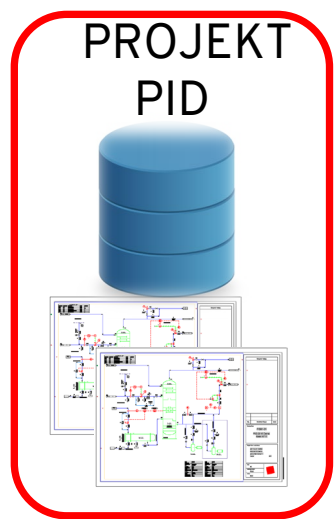
20-FC-200



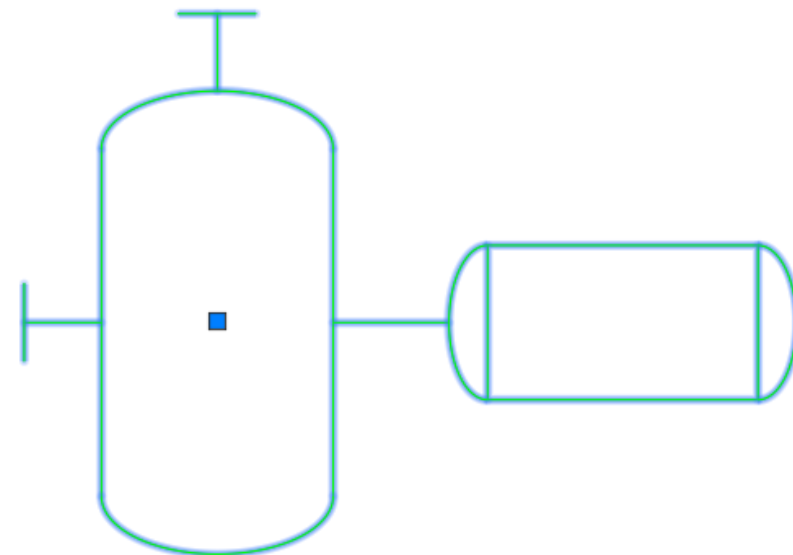
The screenshot displays a software interface for managing process equipment. The left pane shows the 'PROPERTIES' window for an 'ACPPASSET'. The 'General' tab is active, showing various attributes. Key values are highlighted in yellow boxes: 'Control Valve Style' for graphical style, '20' for area, 'CV' for type, '300' for loop number, '8' for size, 'Unspecified' for valve code, 'Globe Valve' for body type, and 'Hand Wheel Actuator' for actuator type. The right pane shows a 2D wireframe diagram of a process flow. It includes a control valve labeled 'CV 300' with a red arrow pointing to it from the properties window. The diagram also shows two 1-inch valves labeled 'GA-209' and 'GA-210', and an 8-inch valve labeled 'BF-200'. The bottom right corner shows the tag '20-FC-200'.

Data flow !

Hvor fødes data ?



P&ID	
Class	Horizontal Centrifugal Pump
Tag	
Tag	P-001
Styles	
Graphical style	Horizontal Centrifugal Pump Style
General	
PnPGuid	5cce05c9-dc93-44b2-a593-11f6ad448839
Description	Centrifugal Pump
Manufacturer	
Model Number	
Supplier	
Comment	
Alt. Tag Number	
Status	New
Dokumentation	
Supplier ref no	
Type	P
Equipment Spec	
Weight	
Material of Construction	
Number	001
Area	52
Internal State	
Item Code	
Flow Capacity	
Power	
Total Dynamic Head	
Voltage	
Phase	
Frequency	
Insulation Type	
Insulation Thickness	
Design Pressure	
IP Class	
Amp	
Connection1_Inlet	
Connection2_Outlet	



E-100

Data flow – Data kilde(r)

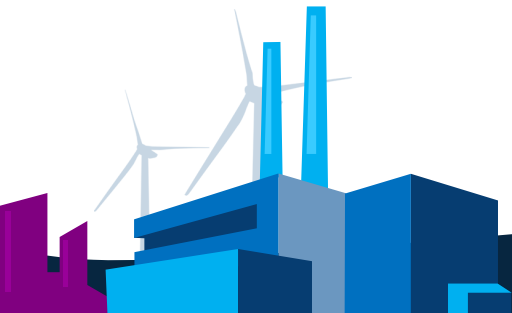
Eksterne databaser



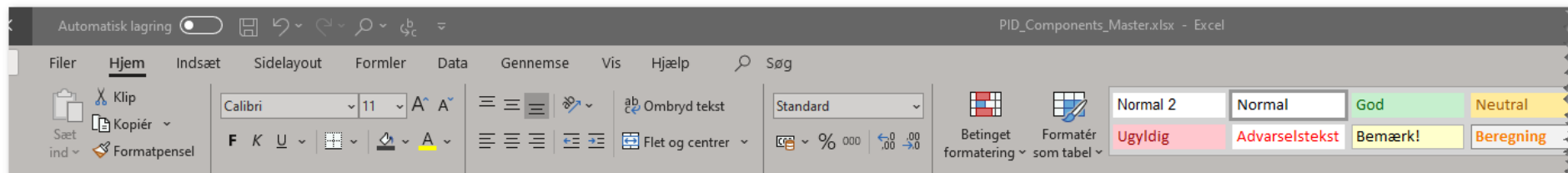
Eksterne databaser:

(Hvilken som helst datakilde hvor der kan laves et opslag til)

- ERP systemer (SAP, Navision, Axapta, C5
- SQL Databaser (MDOC...)
- SQLite Databaser
- Access Databaser
- Excel regneark



Data flow, Datakilde eksempel med Excel



Item Code	Type	Type Description	Manufacturer	Supplier	Model Number	Supplier ref	Capacity	Design Pressure	Connection1_Inlet	Connection2	Weight	Material	Power	Amp	Voltage	Phase	Frequency	IP Class
x204000	P	Cirkulations pumpe	Grundfos	Bdr. Dahl	Alpha2 2040N 150	97660453	Ukendt	10				6 ISO 1.4404	Ukendt		230 VAC	1x	50 Hz	IP44
x204001	P	Cirkulations pumpe	Grundfos	Bdr. Dahl	Alpha2 2060N 150	97660456	Ukendt	10				7 ISO 1.4404	Ukendt		230 VAC	1x	50 Hz	IP44
x204002	P	Forsyningspumpe	Grundfos	Bdr. Dahl	CRE3-8	97660459	Ukendt	10				10 ISO 1.4404	Ukendt		400 VAC	3x	50 Hz	IP44
x204003	P	Forsyningspumpe	Grundfos	Bdr. Dahl	CRE5-9	97660462	Ukendt	10				11 ISO 1.4404	Ukendt		400 VAC	3x	50 Hz	IP44
x204004	P	Forsyningspumpe	Grundfos	Bdr. Dahl	CRE10-5	97660465	Ukendt	10				12 ISO 1.4404	Ukendt		400 VAC	3x	50 Hz	IP54
x204005	P	Forsyningspumpe	Grundfos	Bdr. Dahl	CRE15-3	97660468	Ukendt	10				13 ISO 1.4404	Ukendt		400 VAC	3x	50 Hz	IP21
x204006	P	Forsyningspumpe	Grundfos	Bdr. Dahl	CRE15-4	97660471	Ukendt	10				14 ISO 1.4404	Ukendt		400 VAC	3x	50 Hz	IP65
x204007	P	Forsyningspumpe	Grundfos	Bdr. Dahl	CRE20-4	97660474	Ukendt	10				15 ISO 1.4404	Ukendt		400 VAC	3x	50 Hz	IP44
x204008	P	Forsyningspumpe	Grundfos	Bdr. Dahl	CRE32-4	97660477	Ukendt	10				16 ISO 1.4404	Ukendt		400 VAC	3x	50 Hz	IP54
x204009	P	Booster pump	Grundfos	Bdrd. Kier	CMB1-3	97530087	1 m3/h	6 1"		1"		Cast	0,377	2,4	230 VAC	1x	50 Hz	IP55
x204010	P	Booster pump	Grundfos	Bdrd. Kier	CMB3-6	97530150	3 m3/h	10 1"		1"		Cast	0,869	4,4	230 VAC	1x	50 Hz	IP55
x204011	P	Booster pump	Grundfos	Bdrd. Kier	CMB5-5	97687685	5 m3/h	10 1"		1 1/4"		Cast	1,16	5,4	230 VAC	1x	50 Hz	IP55
x201016	CV	Kugleventil m. Aktuator	DVC	Brd. Kier	4712-16	KV710-CV	710 ISO 1.4404 NC	10 FLC	0 - 10 V	6 bar	Analog	24 VDC	IP44	3 wire	0	0	0	2

20	HV	x200019	HV	Butterflyventil	Epos	DVC	54222-02	BFV032-H	32 ISO 1.4404	BV	Flanged	10	Usable	
21	HV	x200020	HV	Butterflyventil	Epos	DVC	54222-03	BFV040-H	40 ISO 1.4404	BV	Flanged	10	Usable	
22	HV	x200021	HV	Butterflyventil	Epos	DVC	54222-04	BFV050-H	50 ISO 1.4404	BV	Flanged	10	Usable	
23	HV	x200022	HV	Butterflyventil	Epos	DVC	54222-05	BFV063-H	63 ISO 1.4404	BV	Flanged	10	Usable	
24	HV	x200023	HV	Butterflyventil	Epos	DVC	54222-06	BFV075-H	75 ISO 1.4404	BV	Flanged	10	Usable	
25	HV	x200024	HV	Butterflyventil	Epos	DVC	54222-07	BFV090-H	90 ISO 1.4404	BV	Flanged	10	Usable	
26	HV	x200025	HV	Butterflyventil	Epos	DVC	54222-08	BFV110-H	110 ISO 1.4404	BV	Flanged	10	Usable	
27	HV	x200026	HV	Butterflyventil	Epos	DVC	54222-09	BFV160-H	160 ISO 1.4404	BV	Flanged	10	Usable	
28	HV	x200027	HV	Butterflyventil	Epos	DVC	54222-10	BFV200-H	200 ISO 1.4404	BV	Flanged	10	Usable	
29	HV	x200028	HV	Butterflyventil	Epos	DVC	54222-11	BFV250-H	250 ISO 1.4404	BV	Flanged	10	Usable	
30	HV	x200029	HV	Butterflyventil	Epos	DVC	54222-12	BFV315-H	315 ISO 1.4404	BV	Flanged	10	Usable	
31	HV	x200030	HV	Butterflyventil	Epos	DVC	54222-13	BFV400-H	400 ISO 1.4404	BV	Flanged	10	Usable	
32	HV	x200031	HV	Butterflyventil	Epos	DVC	54222-14	BFV500-H	500 ISO 1.4404	BV	Flanged	10	Usable	
33	HV	x200032	HV	Butterflyventil	Epos	DVC	54222-15	BFV630-H	630 ISO 1.4404	BV	Flanged	10	Usable	

Data flow, Datakilde eksempel med Mdoc

MDOC - MdocMFG

Alle dwg

Funktionspanel

PID Component Data

- Equipment - Blowers
- Equipment - Compressor
- Equipment - Pumps
- Equipment - Tanks
- Equipment - Heat Exchangers
- Equipment - Mechanical Drives
- Equipment - Mixing
- Inline Assets - Hand Valves
- Inline Assets - Piping Specialty Items
- Instrumentation - General
- Instrumentation - Inline
- Instrumentation - Control Valves
- Instrumentation - Relief Valves
- Wizards
- Seigning
- Godkendelse
- Case
- AutoCAD Plant 3D

Statisk referenceliste for 1311-DN50FB.pdf

Træk en kolonne her til at gruppere

Type	Navn	Type	Varenummer	Size M...	Pressu...	Manuf...	Valve...	Supplier	Rev.
1311-DN50FB.pdf	Declaration of compliance - Regulation...	Kugleventil, Full Bore m. håndtag	HA1311-50	50	PN16	DVC	BAV	Brd. D...	
1	Installationsvejledning 3-delt kuglehan...								
1	Kuglehane tilbehørs oversigt-1211-131...								

Dokument

Dokument nr. 1311-DN50FB.pdf Rev. Initialer Oprettet Godkendelsesstatus Ikke godkendt

Sags navn Kunde

Beskrivelse DVC Kugleventil dokumentation

Beskrivelse 2 Område nr.

Noter Historik

Oprettet d. 21-10-2022 11:54:57 af PDH.

Referencer

Består af Indgår i

Navn

Installationsvejledning 3...

Forhåndsvisning

File View Markup 3D Measure

Installationsvejledning 3-delt kuglehan type 12-1310 og 12-1311.pdf

Installationsvejledning 3-delt kuglehan Type 12-1310/12-1311

Installation guide 3-pcs ball valve Type 12-1310/12-1311

SPI - Scan Product Info DK UK

På dette produkt kan man scanne ventilens QR-kode og få alle relevante informationer, så som IOM, direkte på sin smartphone. Desuden giver programmet mulighed for at sende en forespørgsel til DVC.

This product can be QR-scanned directly on the valve body. All relevant informations, like IOM, will be displayed directly on your smartphone. The program will allow you to make an inquiry to DVC.

Vigtig sikkerhedsinformation DK UK

Læs denne vejledning grundigt inden installationen af kuglehanen påbegyndes. Anvend ikke ventilen til højere tryk eller temperaturer end angivet i databladet. Forkert anvendelse kan medføre skader på personer og/eller materiel.

Carefully read this instruction before installation of the ball valve. Do not use the valve for higher pressure or temperature than allowed in the datasheet. Improper use can lead to person injury or broken materiel.

Rørføring generelt DK UK

Rørføringen skal være præcis oplineet uden forskydninger i rørsystemet.

Pipe alignment have to be accurate without displacement

Der skal være netop den afstand mellem flangerne svarende til kuglehanens indbygningsmål.

The distance between valve flanges have to be exactly like the "face to face" of the valve body.

Inden ventilen tages i brug skal rørsystemet gennemskylles grundigt.

The pipe and valve have to be flushed before operating the valve first time.

Der skal etableres understøtning af rørføringen.

Support of the pipwork have to be established.

Kuglehaner med gevindender DK UK

Kuglehanen bør ikke adskilles inden installation. Gevindender kan pakkes med stort set alle former for pakkematerialer så som: Pakgarn, Teflontape, gevindsikring osv. Det tilrådes at holde kontra i den ende af kuglehanen hvor røret tilspændes.

Do not disassemble ball valve before installation. Most regular sealing material can be used: Hemp, Teflon tape, Locktite ect. It is advisable to keep the counter at the end of the ball valve where the pipe is tightened.

Kuglehaner med svejsender DK UK

3-delte kuglehaner i rustfri fra DVC kan TIG-svejses direkte ind i rørstrengen uden adskillelse. Det kræver blot, at kuglehanen står åben, når man svejser.

3-piece stainless steel ball valves from DVC can be TIG welded directly into the pipeline without disassembling. It only requires that the ball valve is open when welder.

NB: skal der lægges flere svejsestrøge skal kuglehanen, afkøles mellem svejsningerne.

Please note: if more weld passes have to be made, please cool down the ball valve between weldings.

Ved alle andre svejseformer end TIG-svejsning, skal kuglehanen adskilles, inden svejsning foretages!!!

For all other welding methods than TIG-welding the ball valve has to be disassembled before welding!!!

Ventilens midterpart kan godt blive siddende under punktsvejsning.

The valve body can stay mounted during spot welding.

Husboldene afmonteres og midterparten fjernes med kuglen i åben position.

Please disassemble body bolts and take out the valve body. The valve must be in open position.

Færdiggør svejsningen.

Complete the welding procedure.

Midterparten indføres mellem rengjorte flanger uden af beskadige huspakningen

The valve body is slid back between cleaned flanges, without damaging the body gaskets.

Husboldene spændes jævnt med moment. Se værdierne i tabellen på næste side.

The body bolts are placed and tightened evenly. Please refer the the torque figures in the tabel, next page.

1

Dans Vent Center A/S

Færøvej 14 DK - 7100 Vejle

Tel.: +45 75 72 33 00 Fax: +45 75 72 75 15

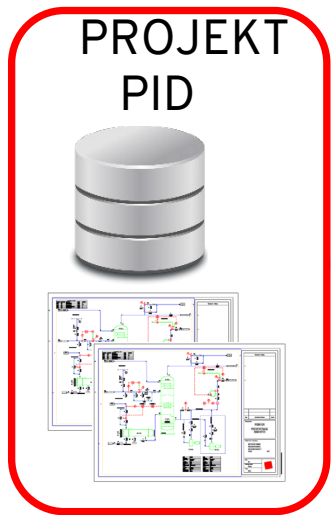
E-mail: mail@dvcas.dk Web: www.dvcas.dk

Klar C:\MdocArkiver\Compende documentation - PID\Engineering Items\Inline Assets\Hand Valves\Installationsvejledning 3-delt kuglehan type 12-1310 og 12-1311.pdf - File exist: 610767 bytes

MdocMFG/Per Damsgaard Hansen

nti

Data flow, Datakilde eksempel med MDOC (SQL) og NTI TOOLS PLANT



MDOC - MDOCMPG

MDOC Mdoc Fil Rediger Vis Værktøj Vindue Hjælp

Funktionspanel

PID Component Data

- Equipment - Blowers
- Equipment - Compressor
- Equipment - Pumps
- Equipment - Tanks
- Equipment - Heat Exchangers
- Equipment - Mechanical Drives
- Equipment - Mixing
- Inline Assets - Hand Valves
- Inline Assets - Piping Specialty Items
- Instrumentation - General
- Instrumentation - Inline
- Instrumentation - Control Valves
- Instrumentation - Relief Valves

Componente specifications - PID\Hand Valves

Type

28 Stk Totalt 1 Stk Valgt

Type	Navn	Type	Varenummer	Size	Pressu	Manuf	Valve	Supplie
Type = 'Butterflyventil m. håndtag' - 4 stk								
Type = 'Flanged AVK Kontraklapventil'								
Type = 'Kugleventil, Full Bore m. håndtag'								
1311-DN10FB.pdf								
1311-DN15FB.pdf								
1311-DN20FB.pdf								
1311-DN25FB.pdf								
1311-DN32FB.pdf								
1311-DN40FB.pdf								
1311-DN50FB.pdf								
1311-DN65FB.pdf								
1311-DN80FB.pdf								
1311-DN100FB.pdf								
Type = 'Kugleventil, Red. Bore m. håndtag'								

Rediger information for 1311-DN50FB.pdf

Beskrivelse
3-DELTA PREMIUM KUGLEHANE - FULL BORE

Alternativt sprog 1
Ballvalve - FB

Alternativt sprog 2
Kugelhahn - FB

Manufacturer
DVC

Supplier
Brd. Dahl

Supplier refno
BD1234

Noter
Robust industri kuglehaner til krævende opgaver. Alle kuglehaner trykprøves og der foreligger certifikat 3.1/EN10204. Kan leveres med reduceret eller fuld lysning.

Artstatisk spindel med dynamisk pakdase. Den unikke skrålade nederst på spindlen, hvorpå pyramidepakningen ligger giver optimal tætning, lavt moment og lang levetid.

PTFE med 25% kulfiber anvendes som pakningsmateriale. Dette materiale er velegnet til højere tryk og temperatur, og er desuden mere slidstærkt end traditionelt PTFE.

Godkendelser: TA-Luft, FDA, EU1935, ATEX, SIL3, TR TS 032/2013, 012/2011, 010/2011

<https://www.dvcas.dk/kuglehaner/3-delta/type-1211-1311/>

Manufacturer

Varenummer
HA1311-50

Model Number
1311-DN50FB

Spec / Standard
DIN 2463 / EN ISO 1127 RÆKKE 1

Materiale
AISI316 (304)

Weight
5,7

Pressure Class
PN16

Design Pressure
64 bar

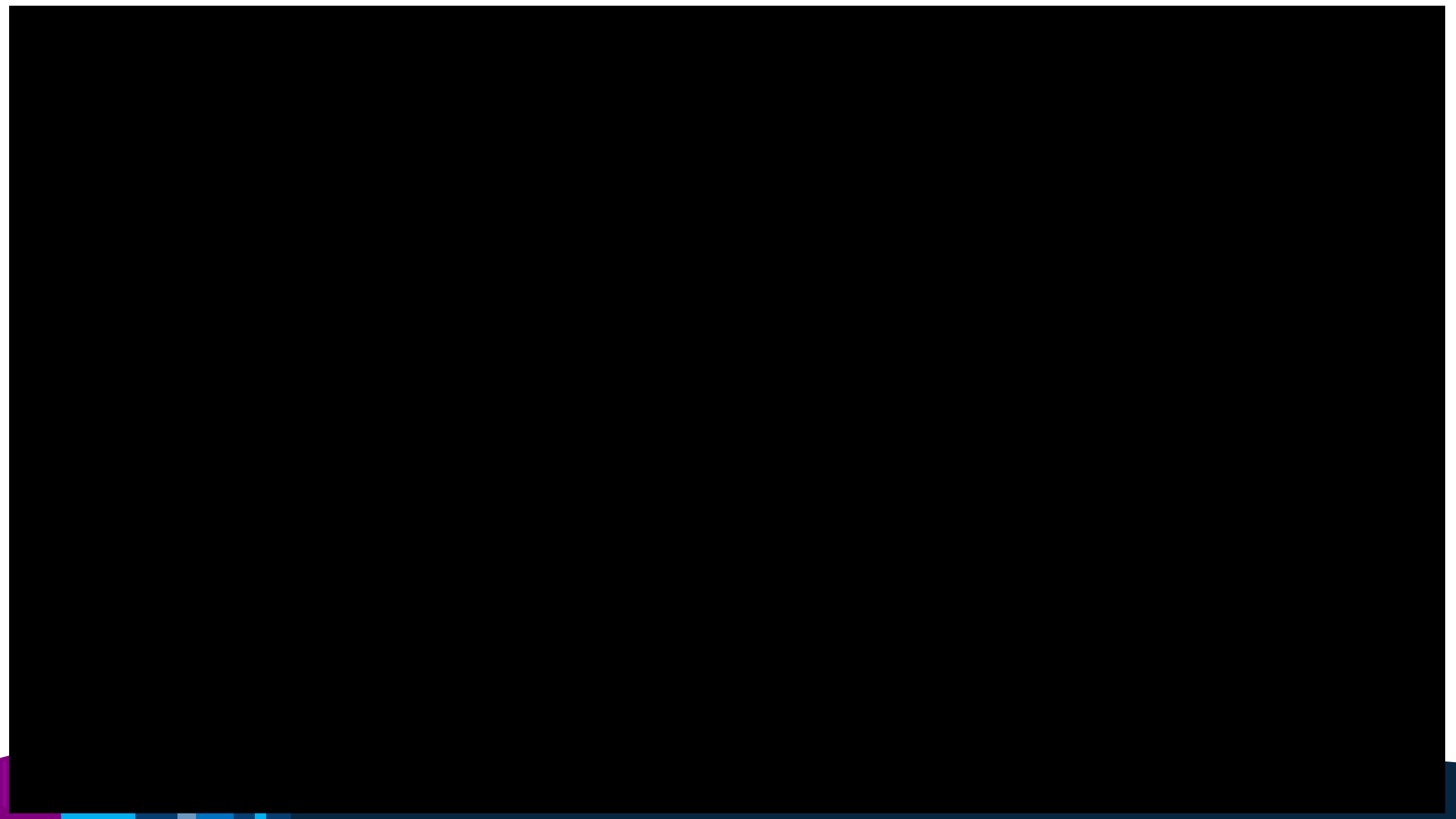
Design Temp.
-38°C TIL 220°C

Isolerings dim.
-

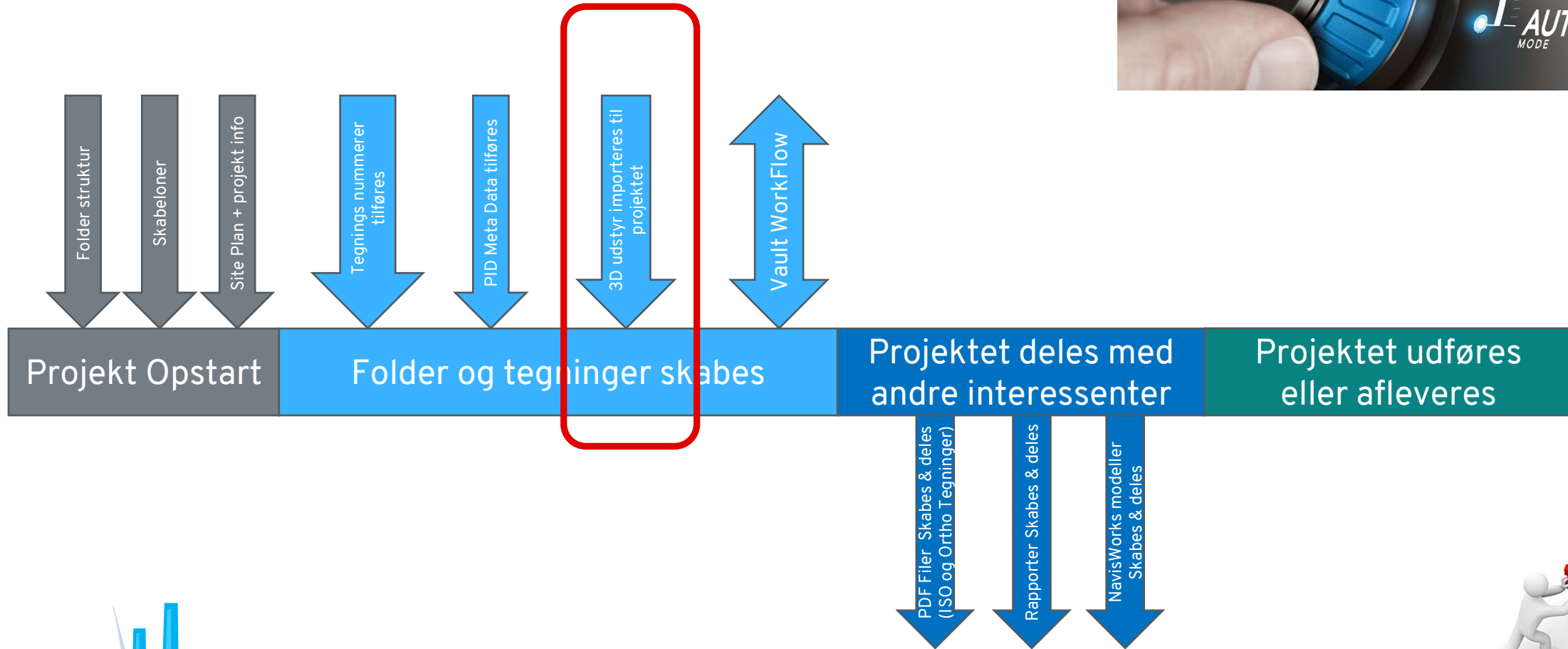
Isoleringstype

Size 2 MM Size 2 Inch Value

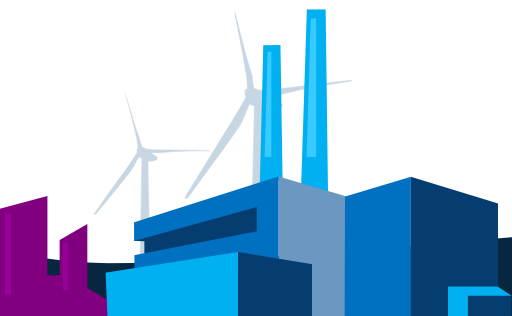
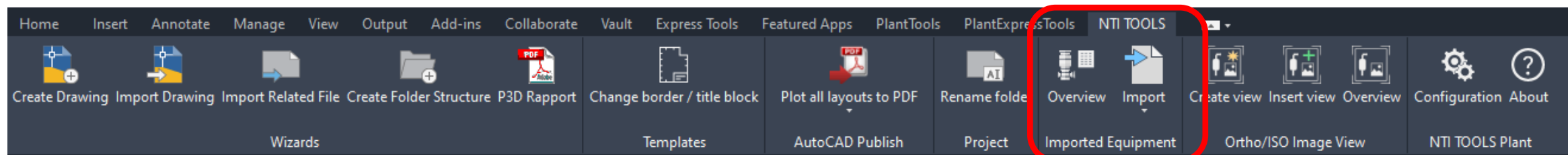
End Connection
Welded



Design- & Projektfasen

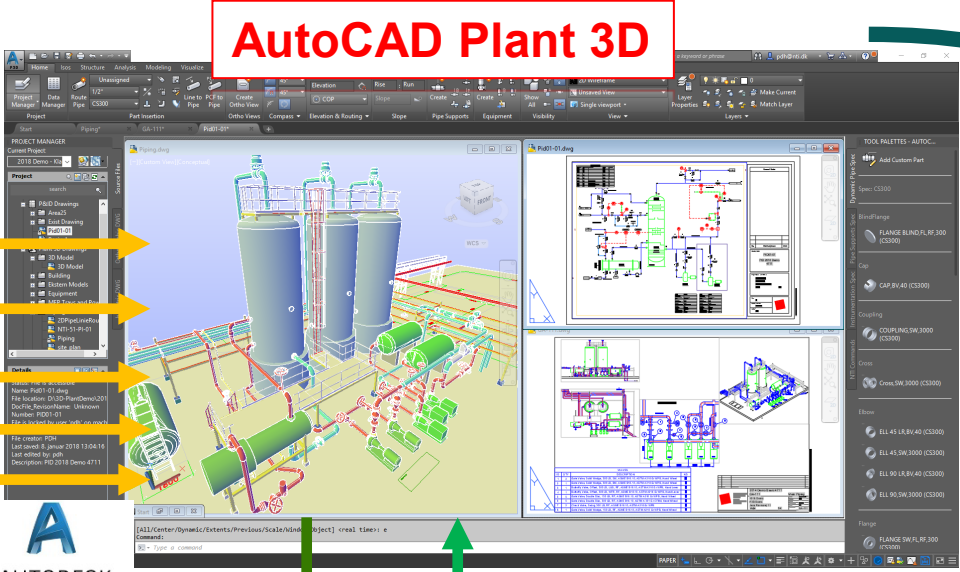
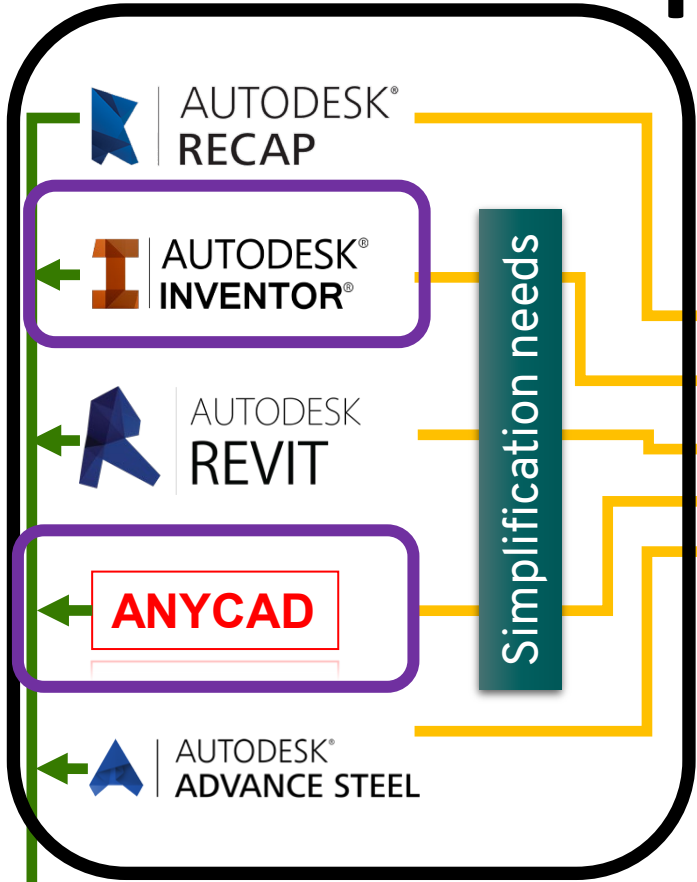


NTI TOOLS PLANT – Imported Equipment



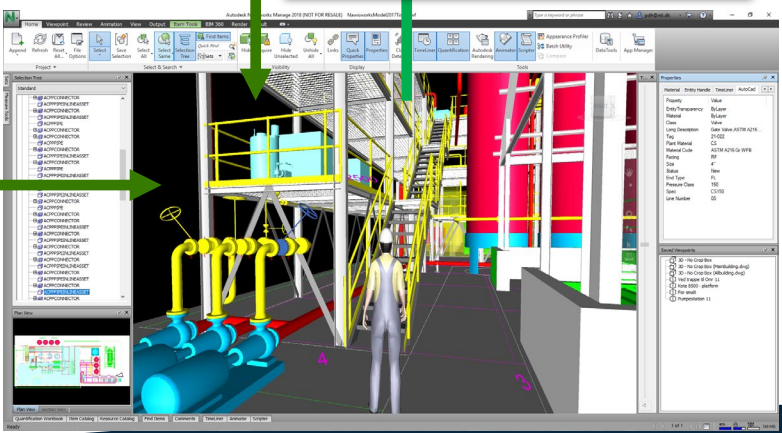
Supplier to a Plant Design

Plant Design Workflow



AUTODESK
AUTOCAD PLANT 3D

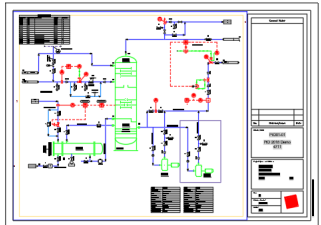
Coordinations
model



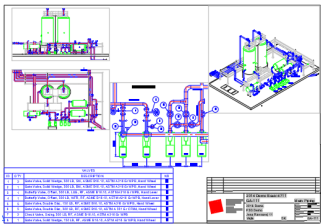
AUTODESK
NAVISWORKS

OUTPUT

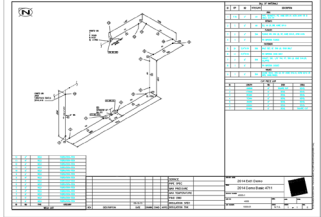
P&I Diagrams



Layout drawings



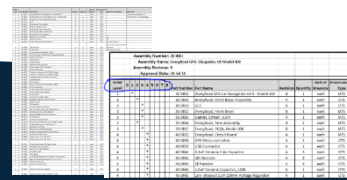
Isometri drawings



Visualisering /Walk through

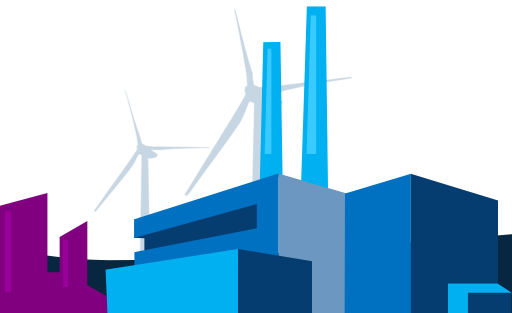


Rapports

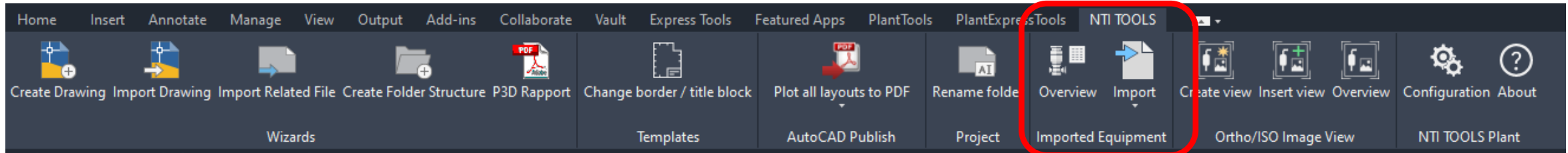


Autodesk ANYCAD

- AnyCAD giver dig mulighed for at bruge native 3D-modeller fra anden CAD-software uden behov for at bruge neutrale filformater.



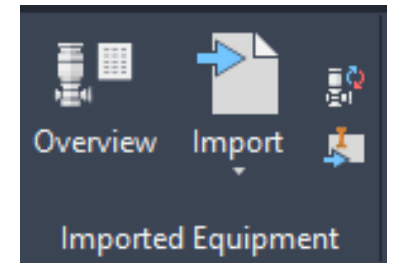
NTI TOOLS PLANT – Imported Equipment



- Udstyr importeres ofte i AutoCAD Plant 3D-projekter til modelfilerne, og kildefilen er typisk STP, ADSK (Inventor), IPT (Inventor) eller SLDPRT (SolidWorks).
- En sådan import, med efterfølgende placering af udstyret i modellen, måske efterfulgt af konvertering til Plant 3D-udstyr med angivelse af metadata og definition af rørforbindelser (rør tilslutninger), er en kompliceret og tidskrævende proces.
Hvis importerede modeller skal ændres senere i projektet, skal originalerne slettes, og hele proceduren gentages.

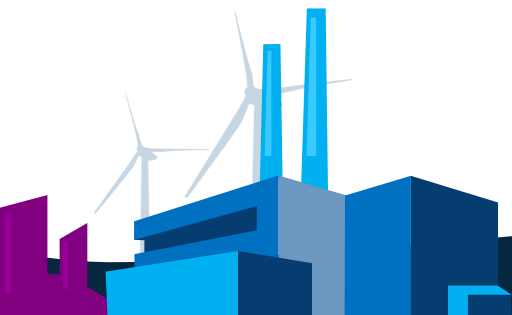
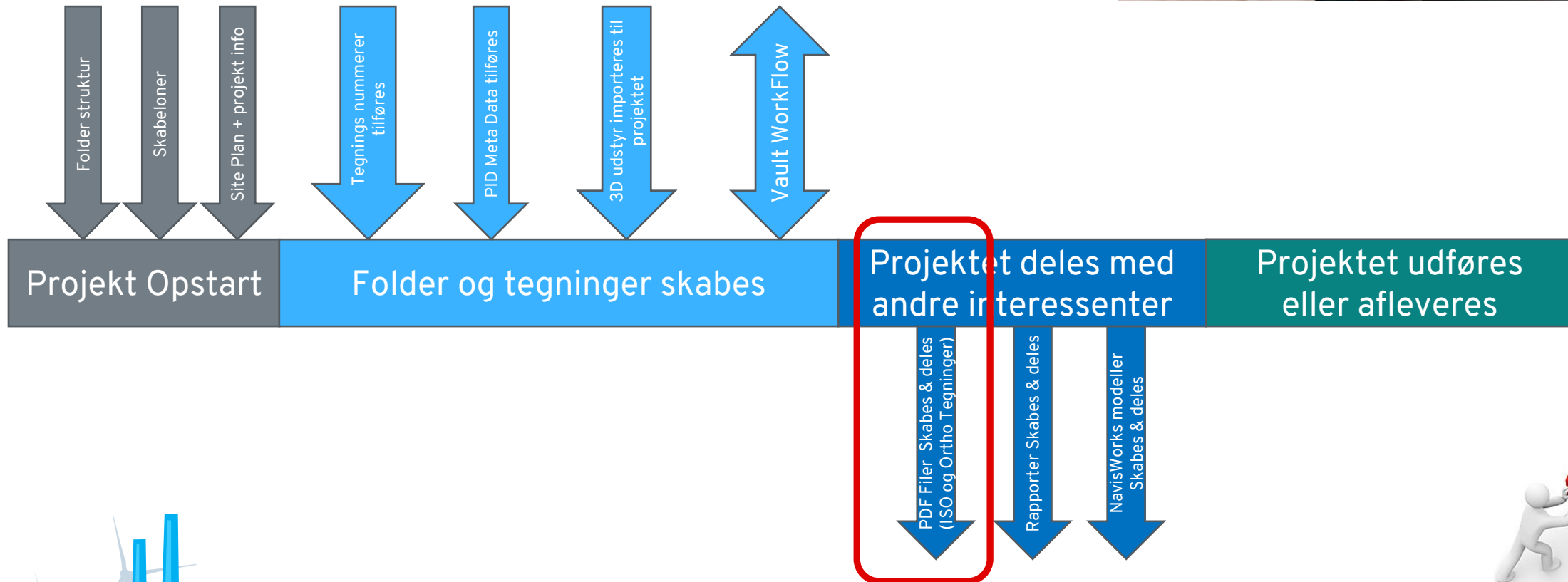
NTI TOOLS PLANT

Imported Equipment



NTI TOOLS Plant									
Imported Equipment									
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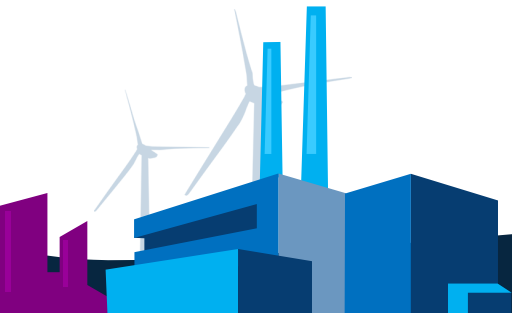
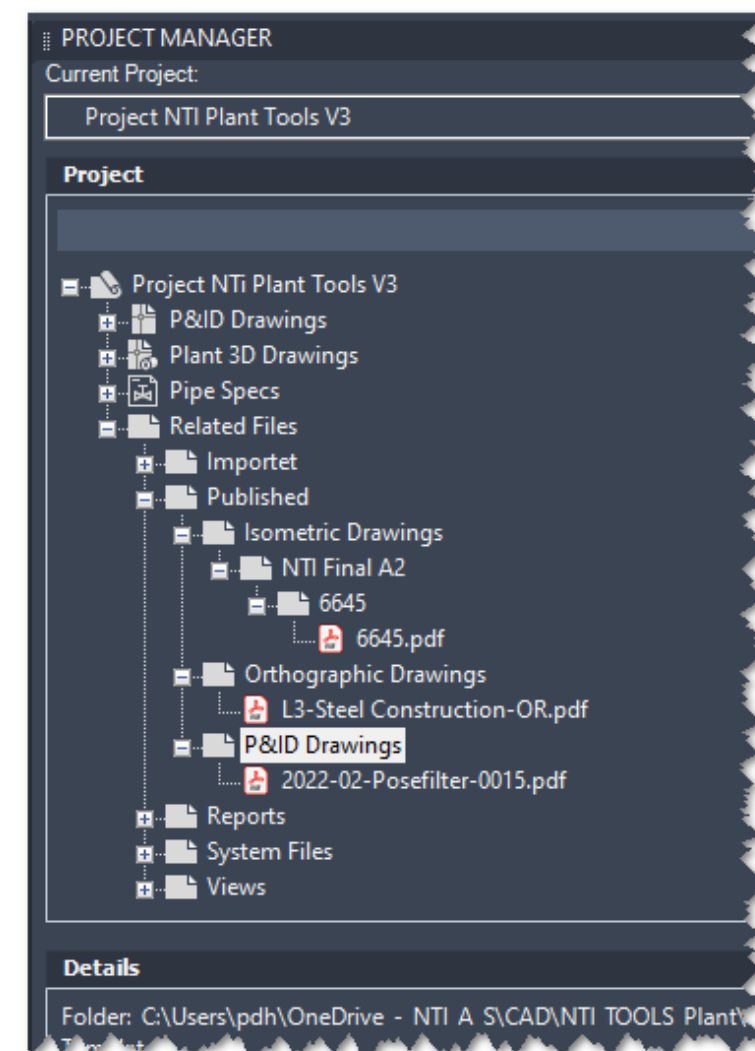
Design- & Projektfasen



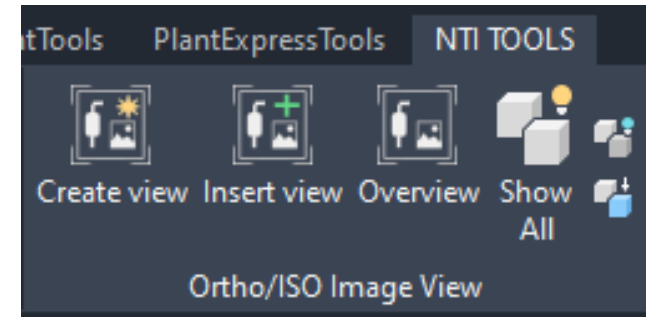
NTI TOOLS PLANT

■ AutoCAD Publish

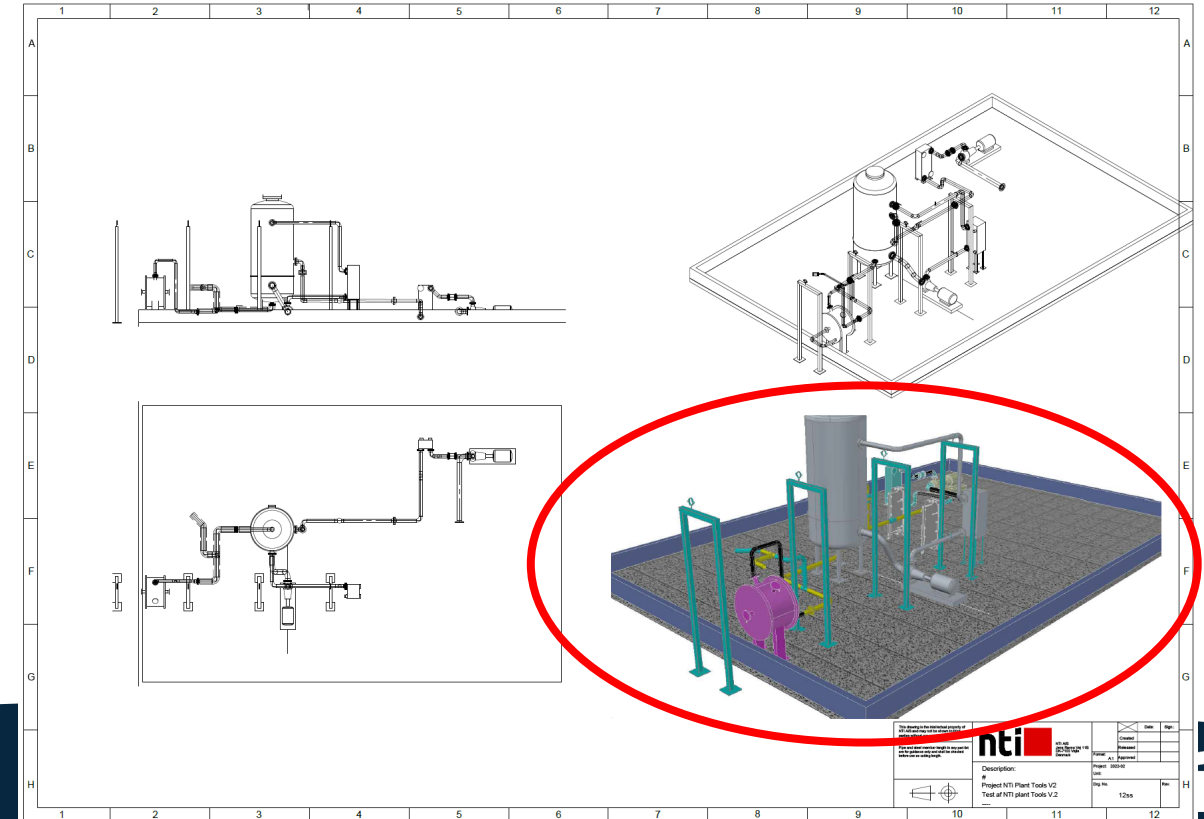
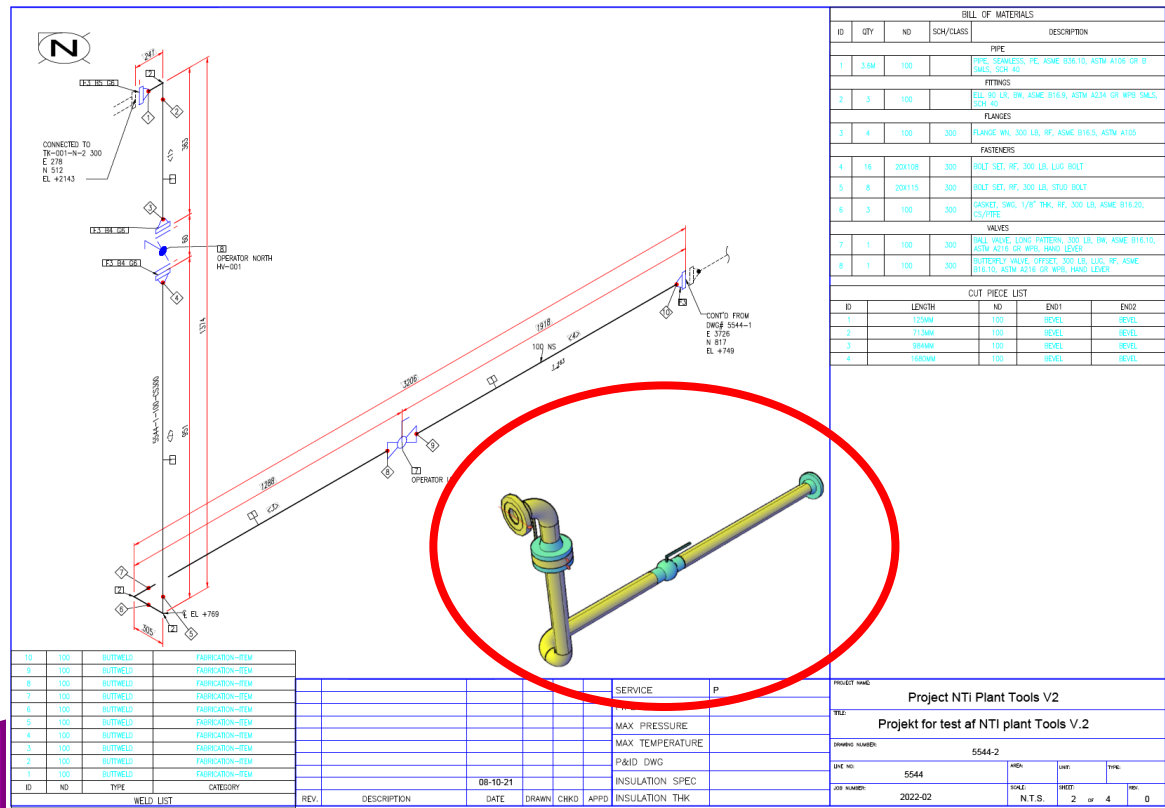
- Det skal være nemt og ligetil at skabe afledte formater af f.eks. PID-tegninger, Ortho-tegninger og Rør Isometric-tegninger.
- Funktionen er designet som en "One-click" funktion.
- Afledte formater gemmes under Relaterede filer.
- I Vault- og BIM 360-projekter er dette især nyttigt, da de afledte formater "automatisk" bliver en del af projektet og uploades til Vault / BIM 360-løsningen.
- NTI TOOLS PLANT - AutoCAD Publish genkender tegningsformater og opretter "korrekt" papirstørrelse i PDF-file



NTI TOOLS PLANT Ortho/ISO Image View

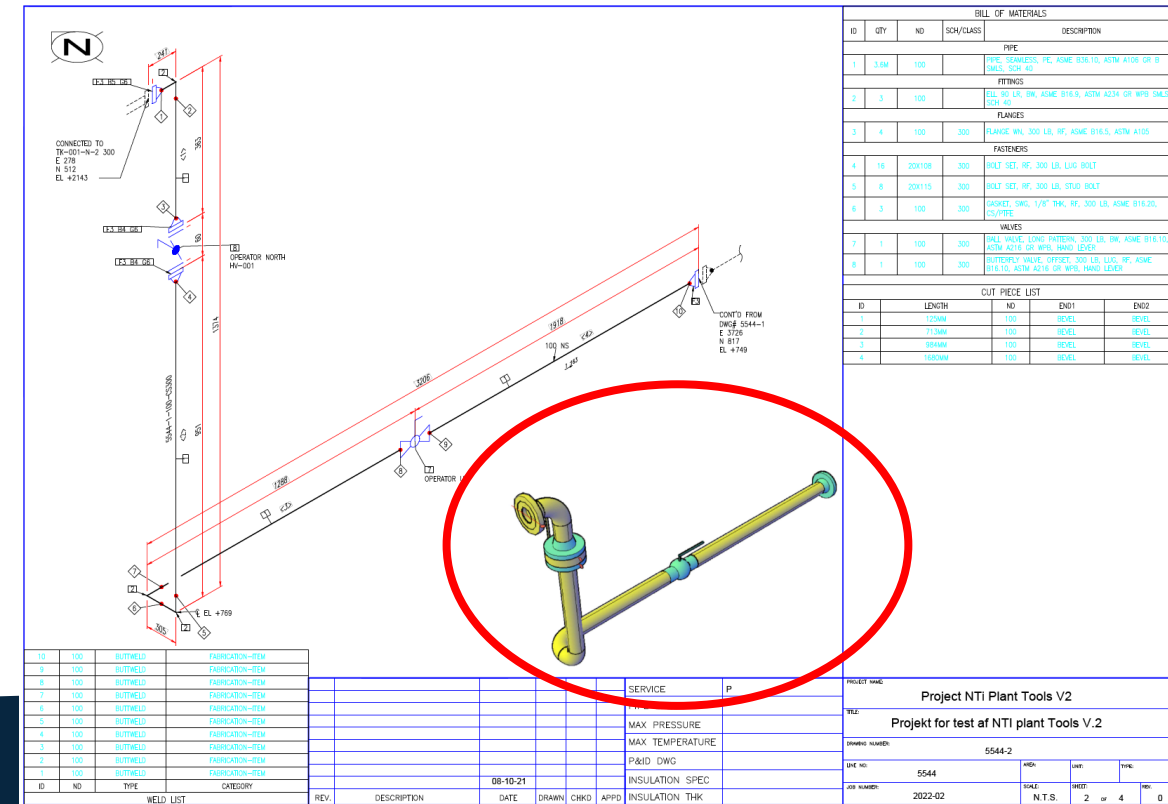
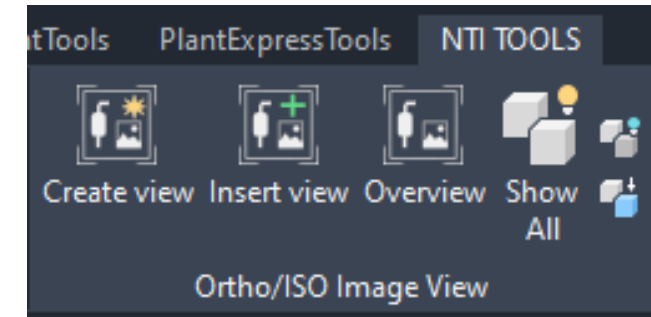


- Understøttende grafik / illustrationer på ISOmetric rør tegninger og Orthographic tegninger



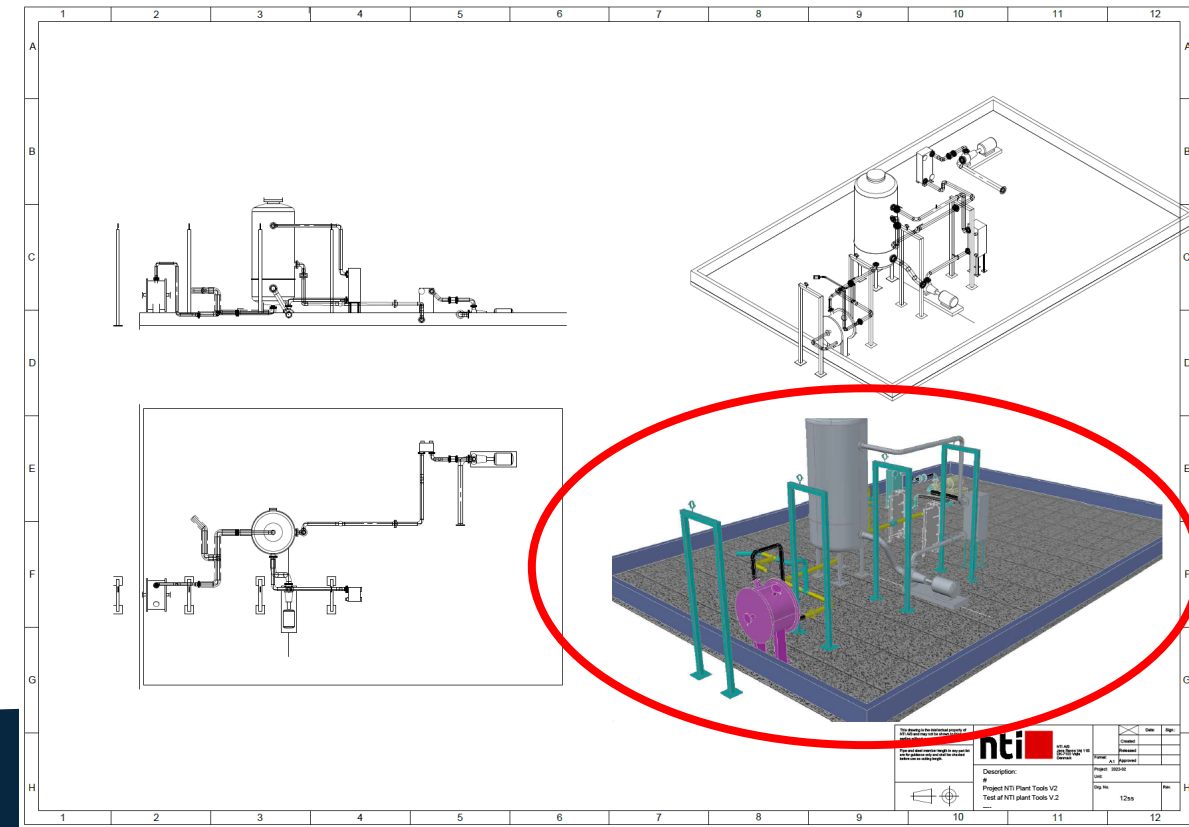
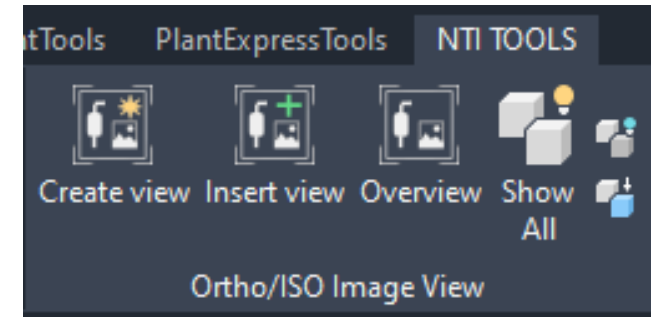
NTI TOOLS PLANT ISO Image View

- Understøttende grafik på ISOmetric rørtegninger.
- Giver væsentlig bedre tegnings forståelse for den / dem der skal fremstille rør spools



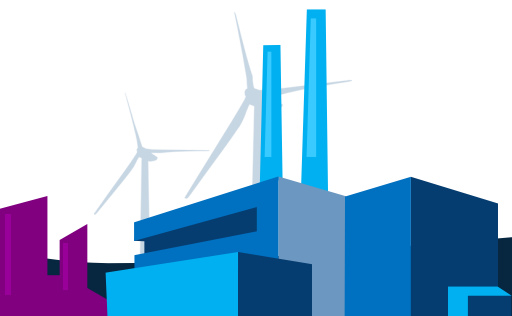
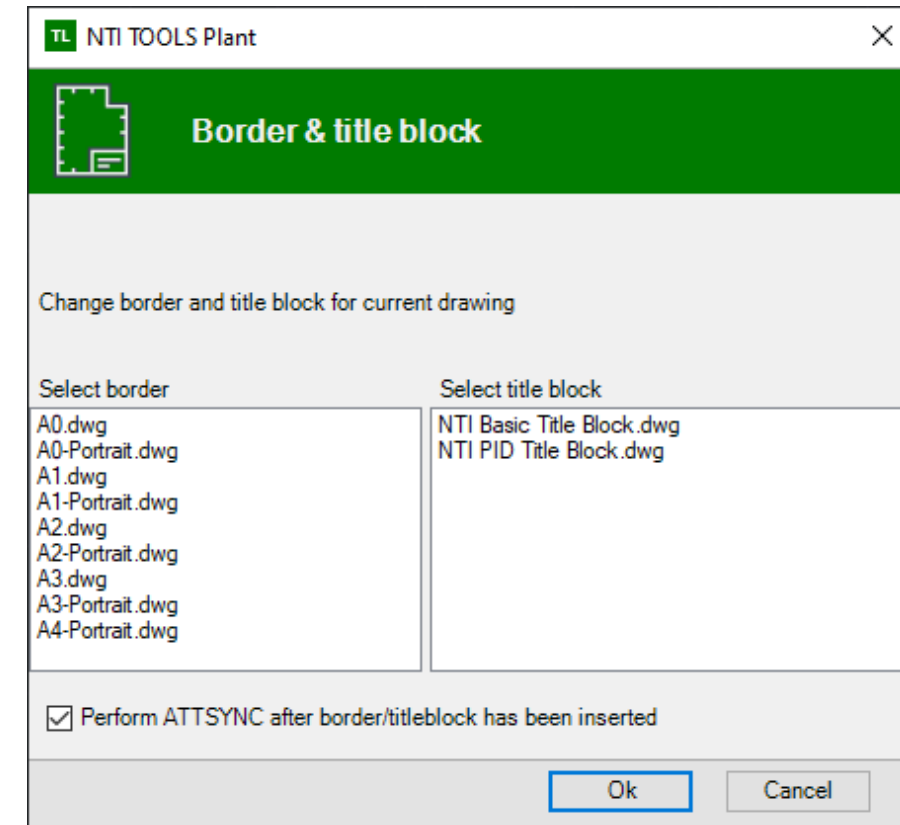
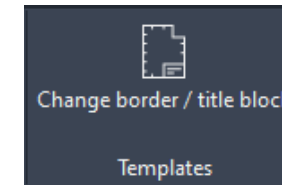
NTI TOOLS PLANT Ortho Image View

- Understøttende grafik på Orthographic tegninger.
- Giver bedre tegnings forståelse og salgs materiale.

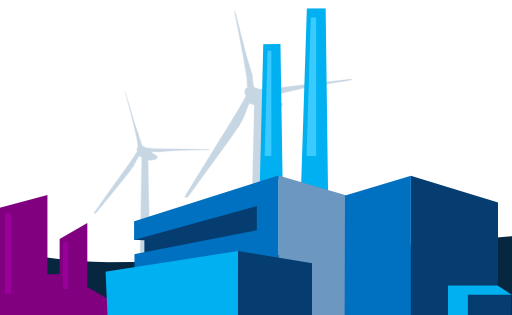
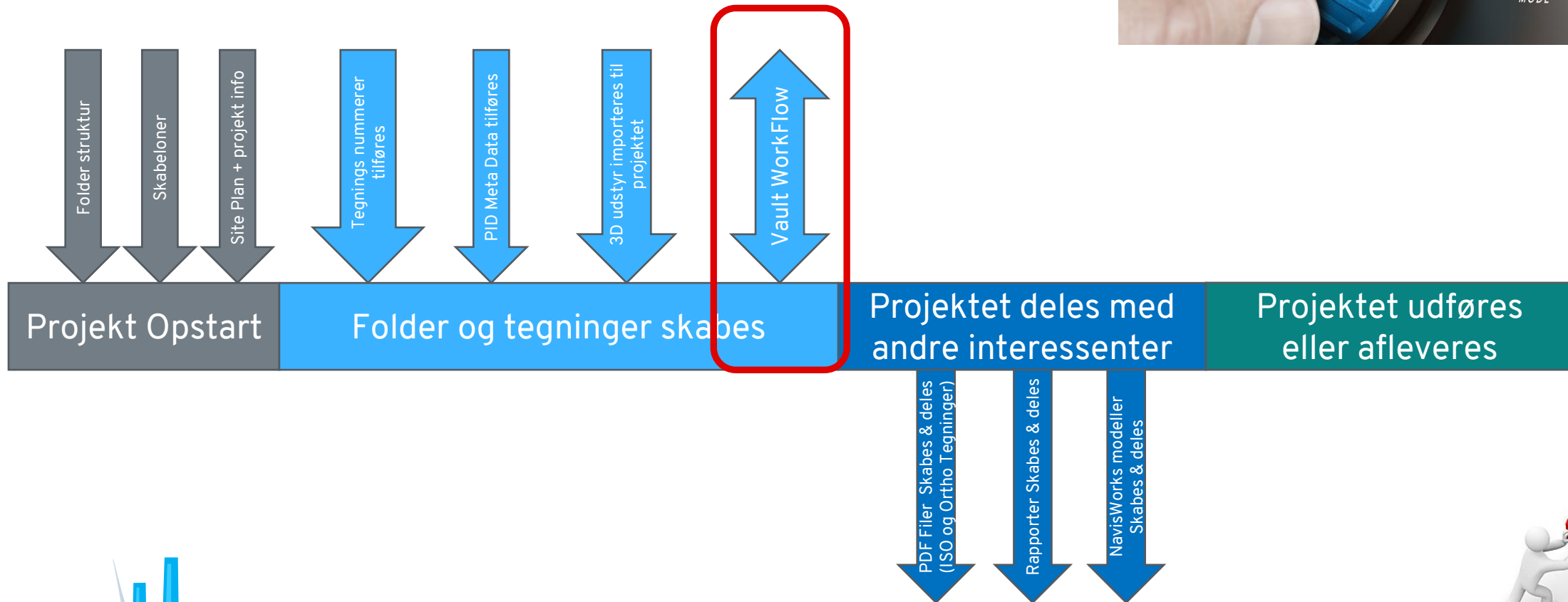


NTI TOOLS PLANT

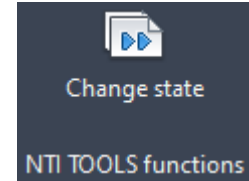
- **Håndtering af Title Blocks og tegnings-rammer.**
 - Inspireret af AutoCAD Mechanical og Inventor.
 - Funktionen skifte nemt mellem de virksomheds eller projektspecifikke tegnerammer og tegnehoveder.
 - Funktionen erstatter tegningsramme og tegnings-hoved i henhold til valg på listen og gør det nemt for brugerne og nemt for administratoren.
 - "Page / Print Setup" følger med tegnings rammen



Design- & Projektfasen



NTI TOOLS PLANT



■ Vault – Change State

TL NTI TOOLS Plant Vault

Change state

Lifecycle definition Plant 3D Flexible Release Process Select new lifecycle state

Documents

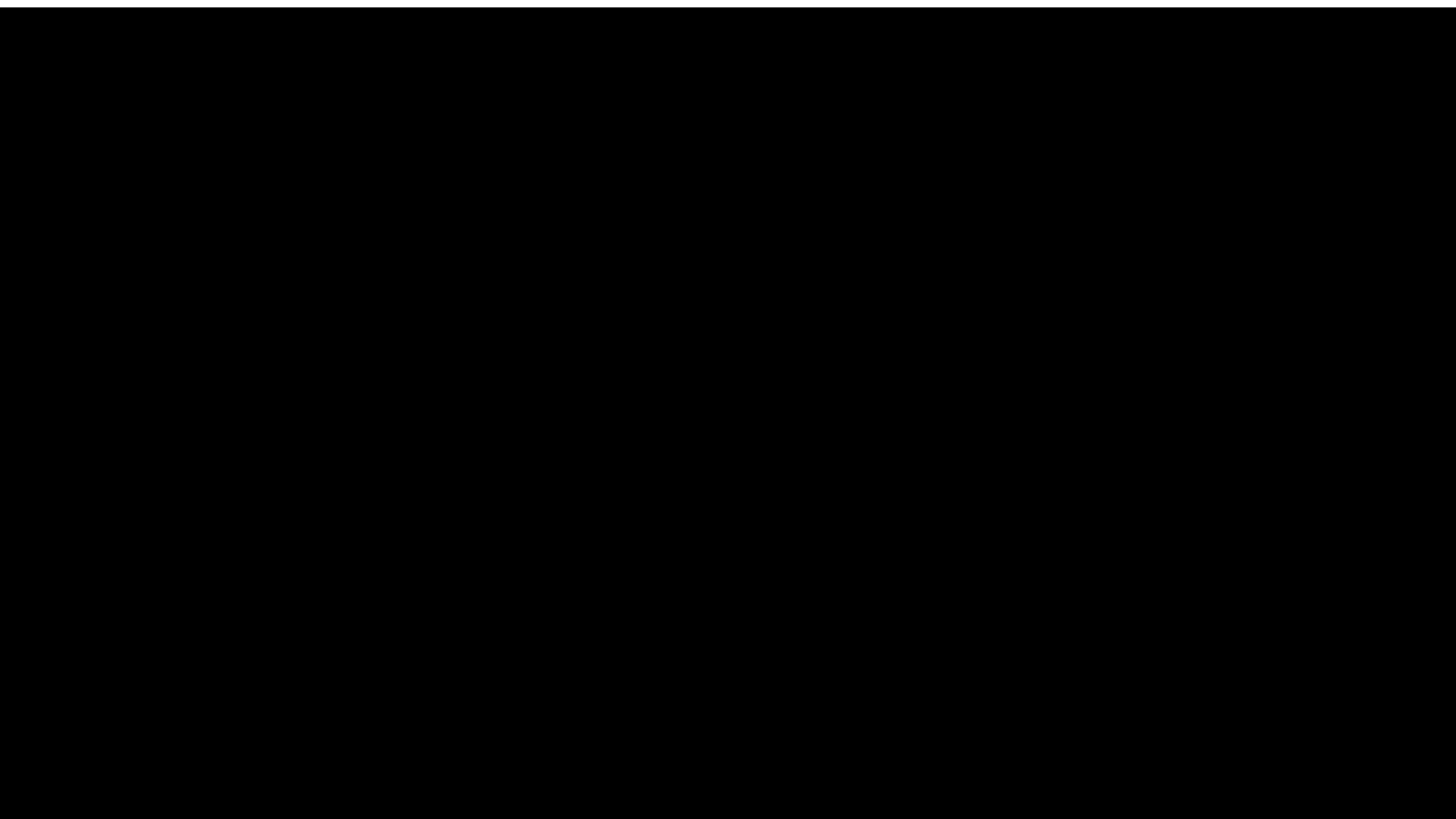
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Comment

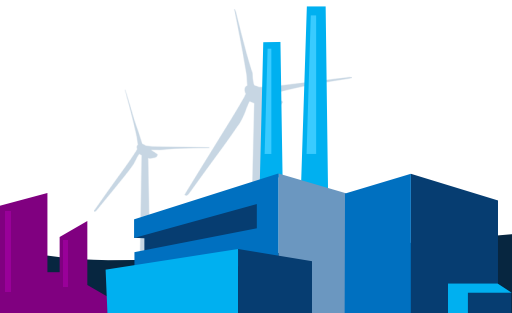
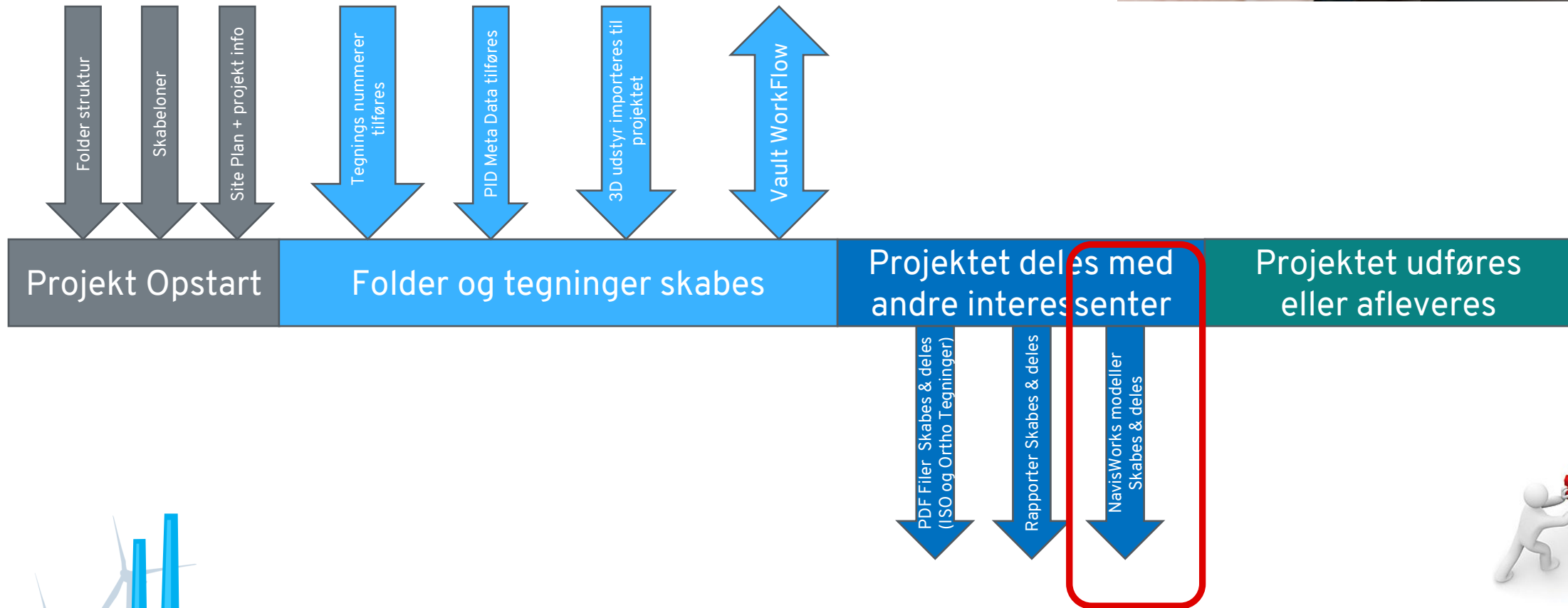
Ok Cancel

Work in Progress
For Review
Quick-Change
Obsolete





Design- & Projektfasen



Projekt Typer

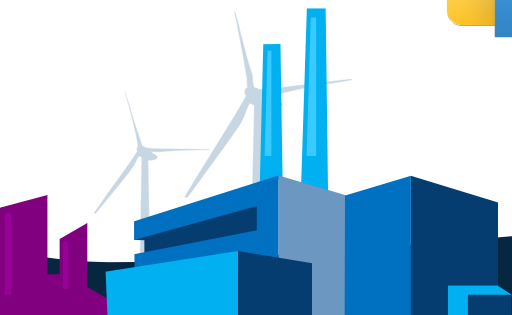
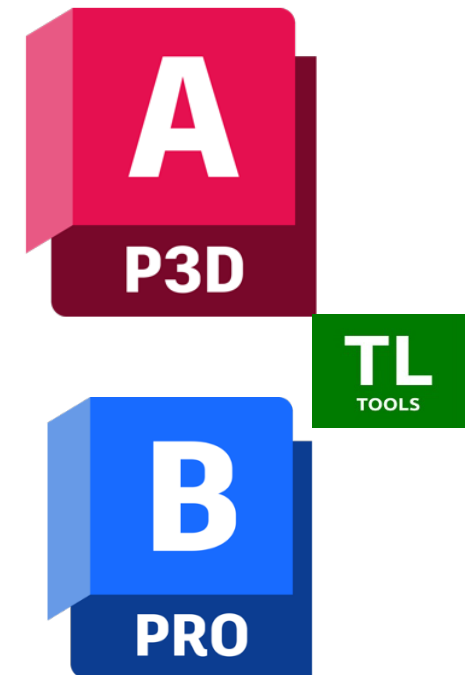
AutoCAD Plant 3D
as a
file-based Project



AutoCAD Plant 3D
as a
Vault Project



AutoCAD Plant 3D
as a
Cloud-based Project





Tak fordi vi måtte bruke jeres tid !

