AX3000
HEATING

Building services engineering

Authorized reseller

3UNITS TECHNOLOGY

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AX3000

What makes AX3000 different?

AX3000

What makes AX3000 different?

- AX3000 is available as Plug-In for
  - BricsCAD V17-V20
  - Allplan 2017-2019
  - AutoCAD 2017-2020
- All versions and platforms are 100% compatible
- Easy interface enables quick training
- Work in CAD with familiar functions
- ONE tool for all planning phases
- ONE intuitive program workflow with both:
  Easyline (1-line dimensioning)
  AND
  construction

AX3000

What makes AX3000 different?

- Innovation and competence
- Own calculation kernel / own calculations
- Trace calculation stages separately – calculations without interfaces
- Graphical check of the building elements
  - everything is testable
  - detect errors immediately
- AX3000 integrates everything from standardized parts lists, graphical fitting lists to CNC-manufacturing lists
- Graphical presentation:
  - Holohedral (filled), black-and-white, no fill
  - with and without hidden edges

AX3000

Main Advantages of AX3000

AX3000

Main Advantages of AX3000

1. Calculate load's directly in the CAD system
2. Graphical analysis of the calculations
3. Radiator placement and floor heating
4. Easy planning with „Easyline“ (1-line dimensioning)
5. Use the „normal“ CAD drawing functions
6. Generate pipe networks in various variants
7. Analysis and calculation of pipe networks with regulation
8. Construction and detailed planning
9. Generate lists in Excel
10. Overall drawing workflow
11. Total compatibility among CAD systems

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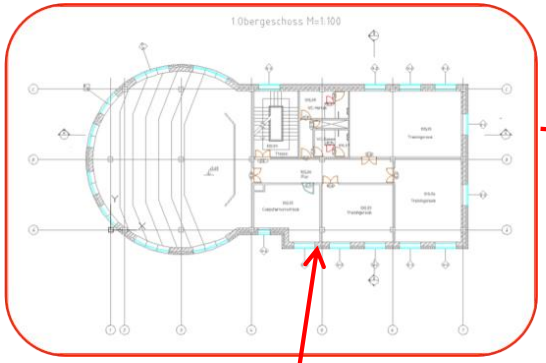
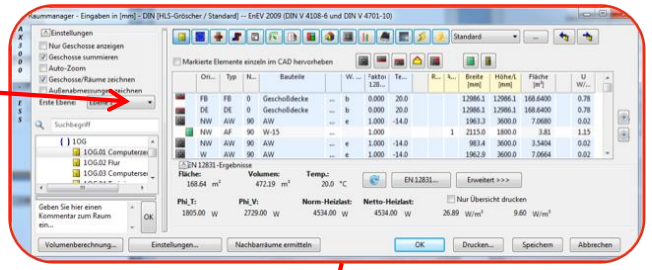
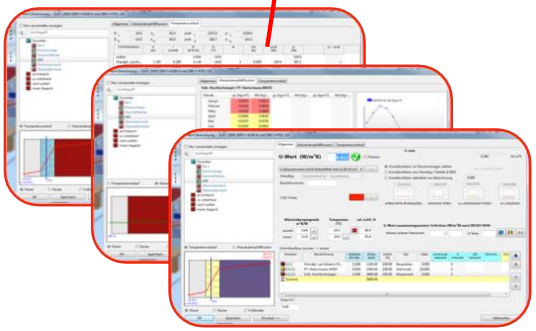
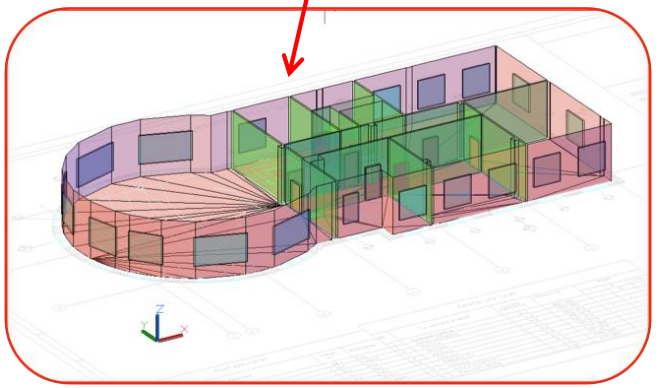
Main Advantages of AX3000









Calculate heating load directly in the CAD system

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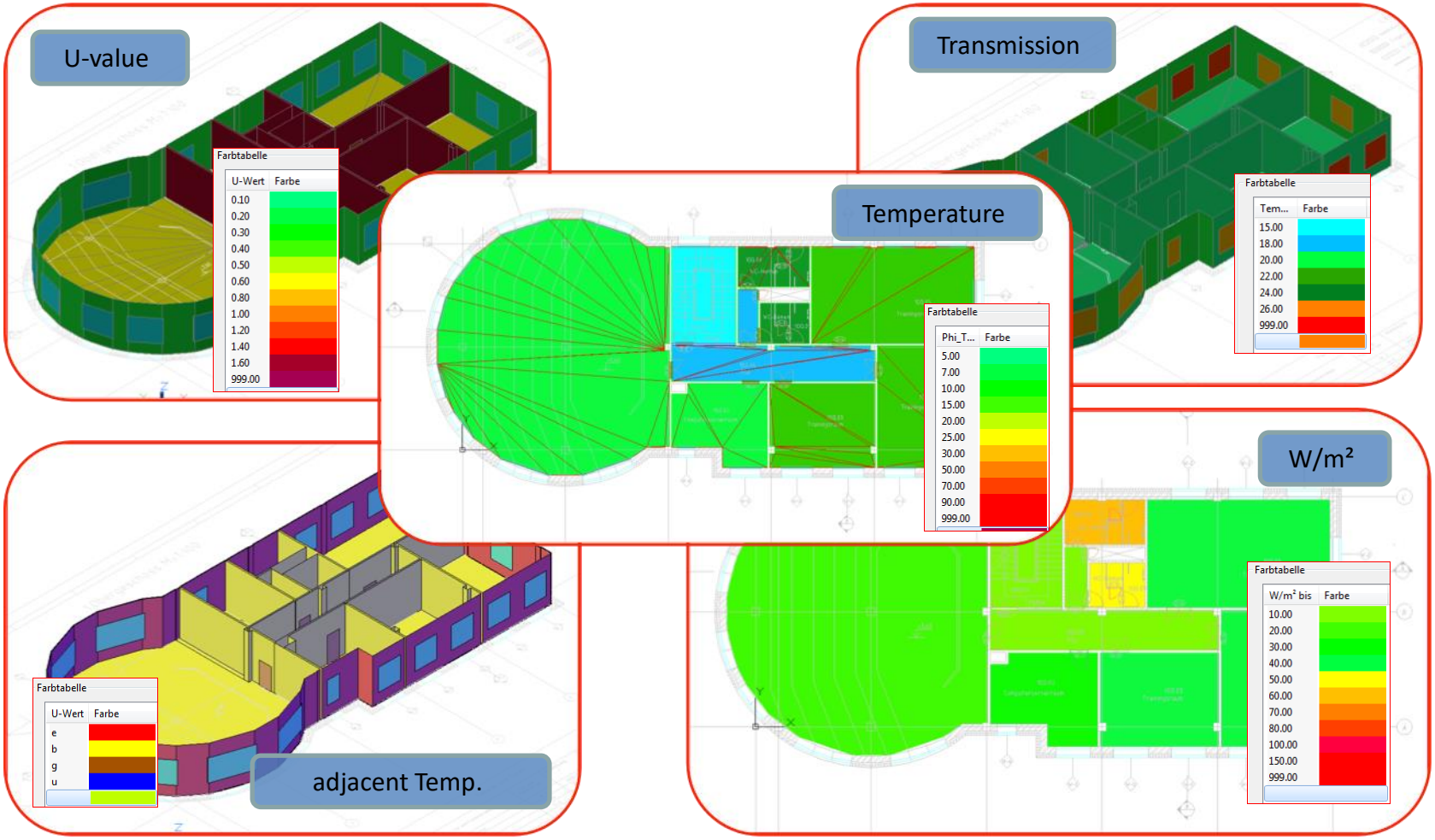
Main Advantages of AX3000



Graphical analysis of the calculation

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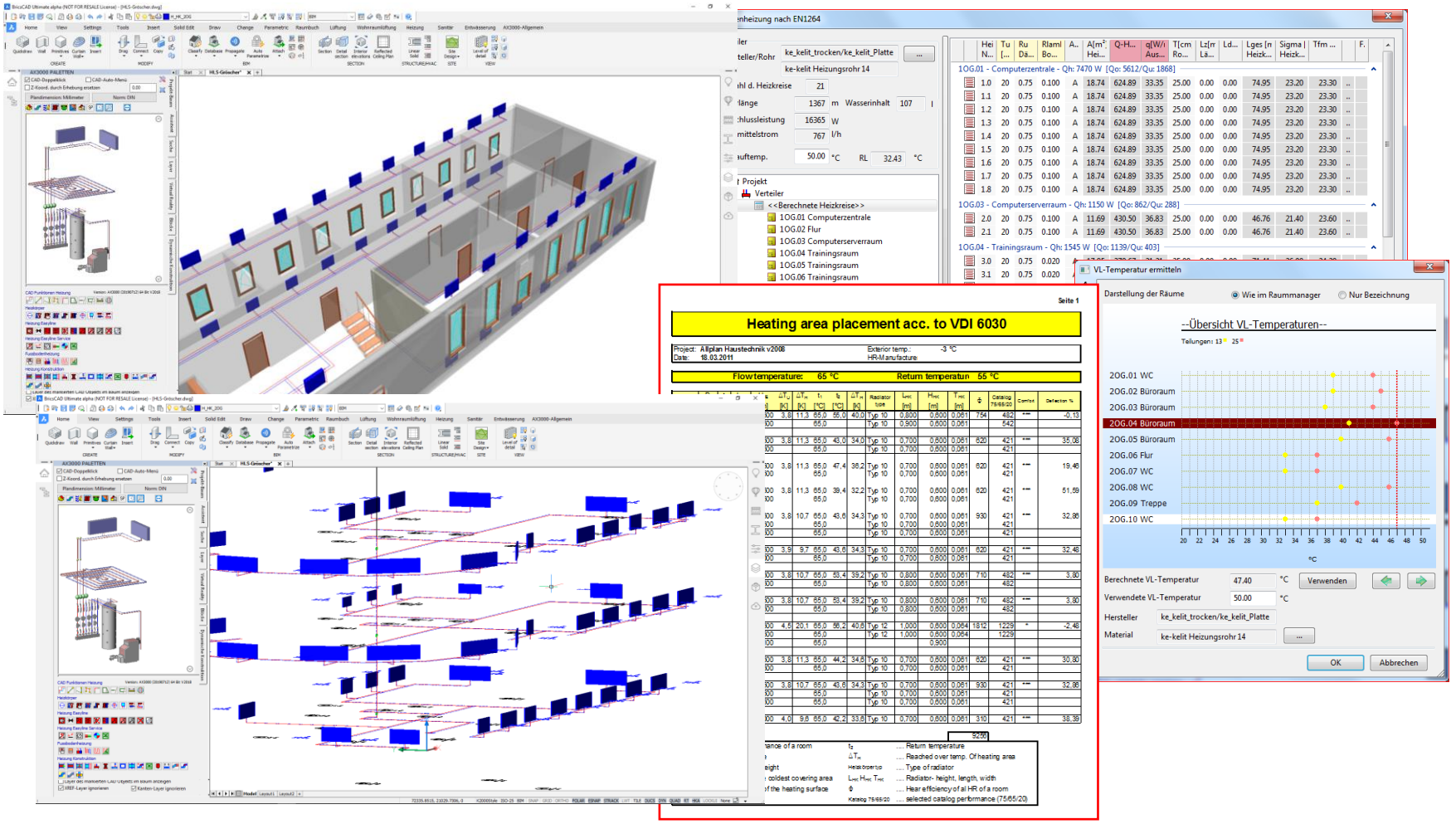
Main Advantages of AX3000



Radiator placement and floor heating

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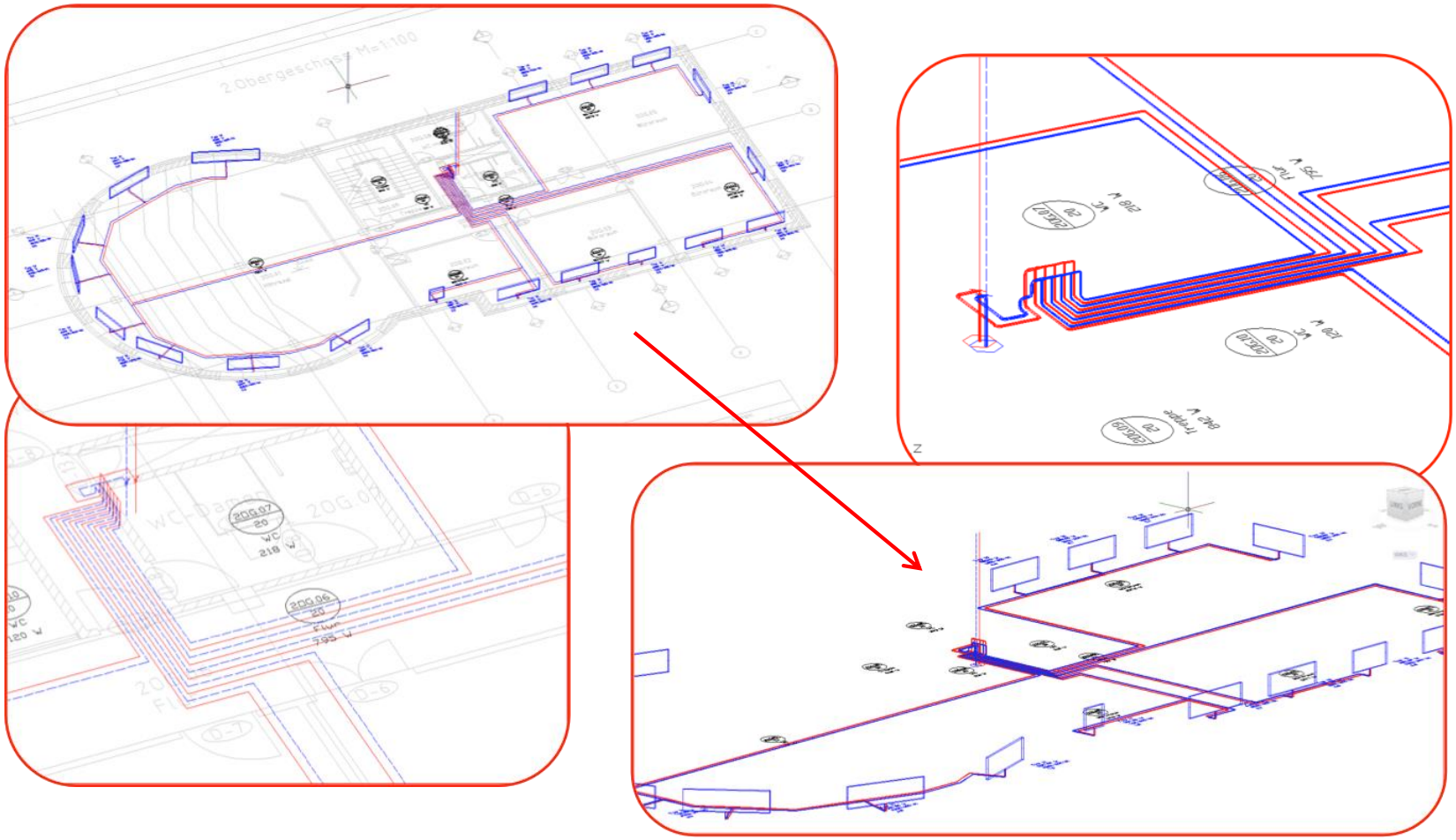
Main Advantages of AX3000



Easy planning with “Easyline”

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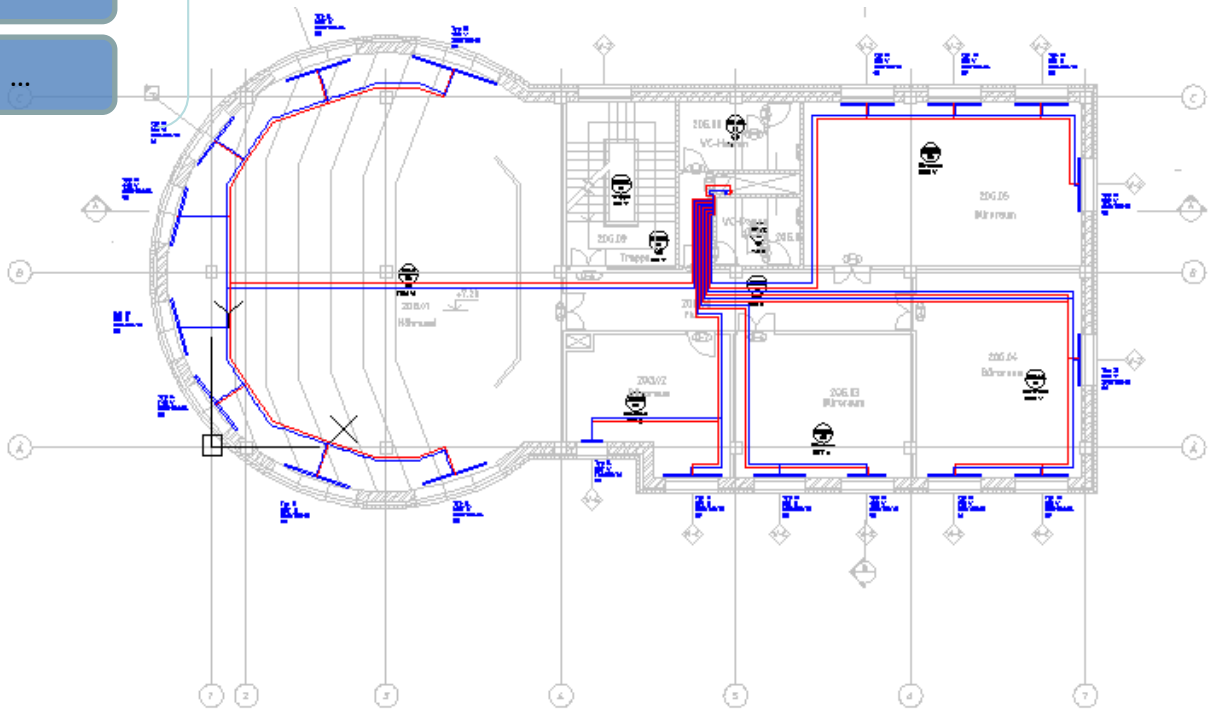
Main Advantages of AX3000

Line
Polyline
Spline

+ Σ

- Material
- Maximum Velocity
- R-value
- ...

=



Generate pipenets with variants

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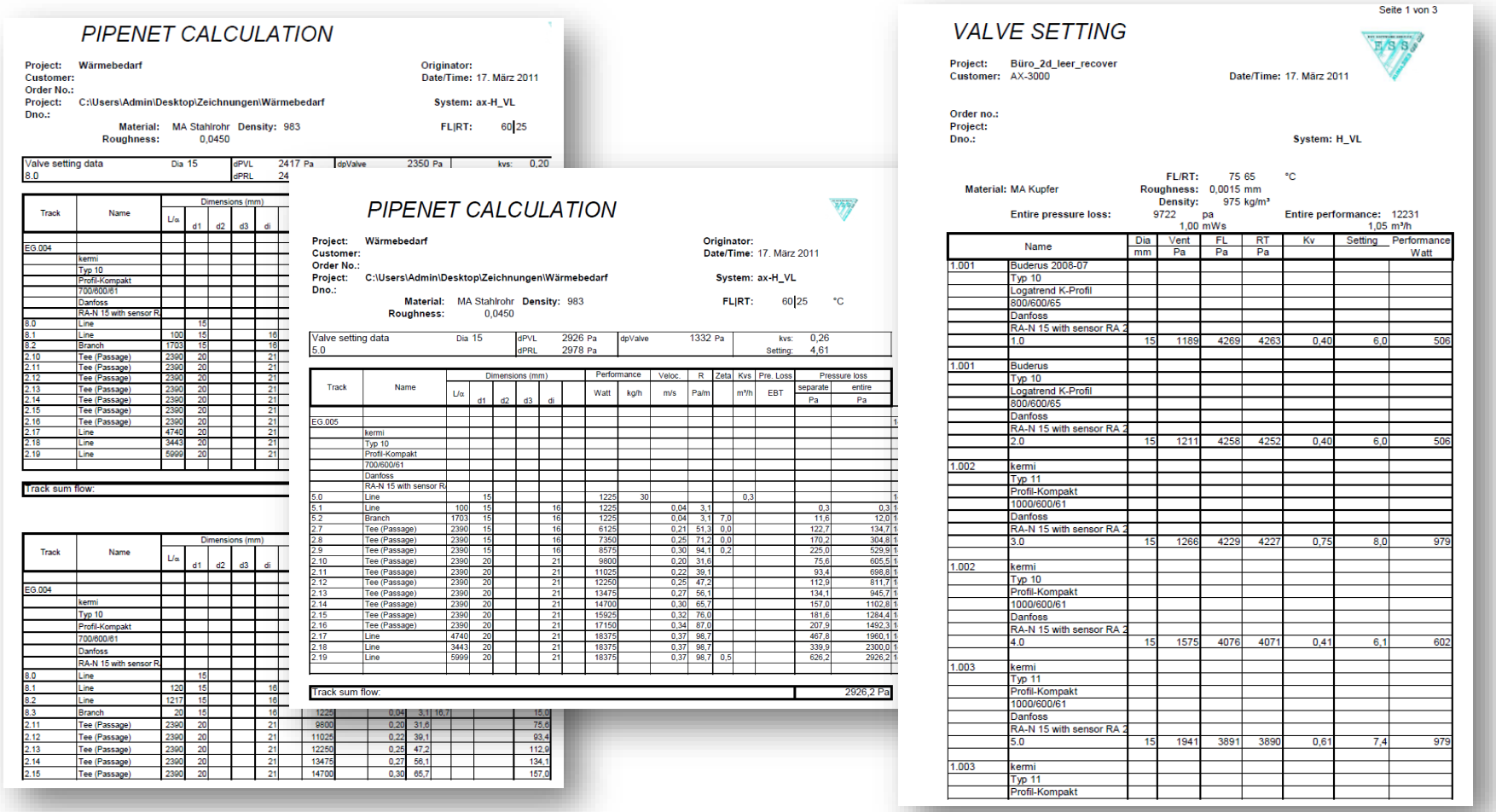
Main Advantages of AX3000



PIPENET CALCULATION

Project: Wärmebedarf
Customer:
Order No.:
Project: C:\Users\Admin\Desktop\Zeichnungen\Wärmebedarf
Dno.:

Originator:
Date/Time: 17. März 2011
System: ax-H_VL

Material: MA Stahlrohr Density: 983
Roughness: 0,0450

FL|RT: 60|25

Valve setting data	Dia 15	dPVL	2417 Pa	dpValve	2350 Pa	kvs:	0,20
8.0		dPRL	24				

Track	Name	Dimensions (mm) L/α	d1	d2	d3	di
EG.004						
	kermi					
	Typ 10					
	Profil-Kompakt					
	700/600/61					
	Danfoss					
	RA-N 15 with sensor R					
8.0	Line		15			
8.1	Line	100	15			16
8.2	Branch	1703	15			16
2.10	Tee (Passage)	2390	20			21
2.11	Tee (Passage)	2390	20			21
2.12	Tee (Passage)	2390	20			21
2.13	Tee (Passage)	2390	20			21
2.14	Tee (Passage)	2390	20			21
2.15	Tee (Passage)	2390	20			21
2.16	Tee (Passage)	2390	20			21
2.17	Line	4740	20			21
2.18	Line	3443	20			21
2.19	Line	5999	20			21

Track sum flow:

PIPENET CALCULATION

Project: Wärmebedarf
Customer:
Order No.:
Project: C:\Users\Admin\Desktop\Zeichnungen\Wärmebedarf
Dno.:

Originator:
Date/Time: 17. März 2011
System: ax-H_VL

Material: MA Stahlrohr Density: 983
Roughness: 0,0450

FL|RT: 60|25 °C

Valve setting data	Dia 15	dPVL	2926 Pa	dpValve	1332 Pa	kvs:	0,26
5.0		dPRL	2978 Pa			Setting:	4,61

Track	Name	Dimensions (mm) L/α	d1	d2	d3	di	Performance Watt	kg/h	Veloc. m/s	R Pa/m	Zeta	Kvs m³/h	Pre. Loss EBT	Pressure loss separate Pa	entire Pa
EG.005															
	kermi														
	Typ 10														
	Profil-Kompakt														
	700/600/61														
	Danfoss														
	RA-N 15 with sensor R														
5.0	Line		15				1225	30				0,3			
5.1	Line	100	15			16	1225		0,04	3,1				0,3	0,3
5.2	Branch	1703	15			16	1225		0,04	3,1	7,0			11,6	12,0
2.7	Tee (Passage)	2390	15			16	6125		0,21	51,3	0,0			122,7	134,7
2.8	Tee (Passage)	2390	15			16	7350		0,25	71,2	0,0			170,2	304,8
2.9	Tee (Passage)	2390	15			16	8575		0,30	94,1	0,2			225,0	529,9
2.10	Tee (Passage)	2390	20			21	9800		0,20	31,6				75,6	605,5
2.11	Tee (Passage)	2390	20			21	11025		0,22	39,1				93,4	698,8
2.12	Tee (Passage)	2390	20			21	12250		0,25	47,2				112,9	811,7
2.13	Tee (Passage)	2390	20			21	13475		0,27	56,1				134,1	945,7
2.14	Tee (Passage)	2390	20			21	14700		0,30	65,7				157,0	1102,8
2.15	Tee (Passage)	2390	20			21	15925		0,32	76,0				181,6	1284,4
2.16	Tee (Passage)	2390	20			21	17150		0,34	87,0				207,9	1492,3
2.17	Line	4740	20			21	18375		0,37	98,7				467,8	1960,1
2.18	Line	3443	20			21	18375		0,37	98,7				339,9	2300,0
2.19	Line	5999	20			21	18375		0,37	98,7	0,5			626,2	2926,2

Track sum flow: 2926,2 Pa

VALVE SETTING

Project: Büro_2d_leer_recover
Customer: AX-3000

Date/Time: 17. März 2011

Order no.:
Project:
Dno.:

System: H_VL

FL/RT: 75 65 °C
Material: MA Kupfer Roughness: 0,0015 mm
Density: 975 kg/m³
Entire pressure loss: 9722 pa
1,00 mWs
Entire performance: 12231
1,05 m³/h

Name		Dia mm	Vent Pa	FL Pa	RT Pa	Kv	Setting	Performance Watt
1.001	Buderus 2008-07							
	Typ 10							
	Logatrend K-Profil							
	800/600/65							
	Danfoss							
	RA-N 15 with sensor RA 2							
	1.0	15	1189	4269	4263	0,40	6,0	506
1.001	Buderus							
	Typ 10							
	Logatrend K-Profil							
	800/600/65							
	Danfoss							
	RA-N 15 with sensor RA 2							
	2.0	15	1211	4258	4252	0,40	6,0	506
1.002	kermi							
	Typ 11							
	Profil-Kompakt							
	1000/600/61							
	Danfoss							
	RA-N 15 with sensor RA 2							
	3.0	15	1266	4229	4227	0,75	8,0	979
1.002	kermi							
	Typ 10							
	Profil-Kompakt							
	1000/600/61							
	Danfoss							
	RA-N 15 with sensor RA 2							
	4.0	15	1575	4076	4071	0,41	6,1	602
1.003	kermi							
	Typ 11							
	Profil-Kompakt							
	1000/600/61							
	Danfoss							
	RA-N 15 with sensor RA 2							
	5.0	15	1941	3891	3890	0,61	7,4	979
1.003	kermi							
	Typ 11							
	Profil-Kompakt							

Analysis and calculation of pipenets with regulation

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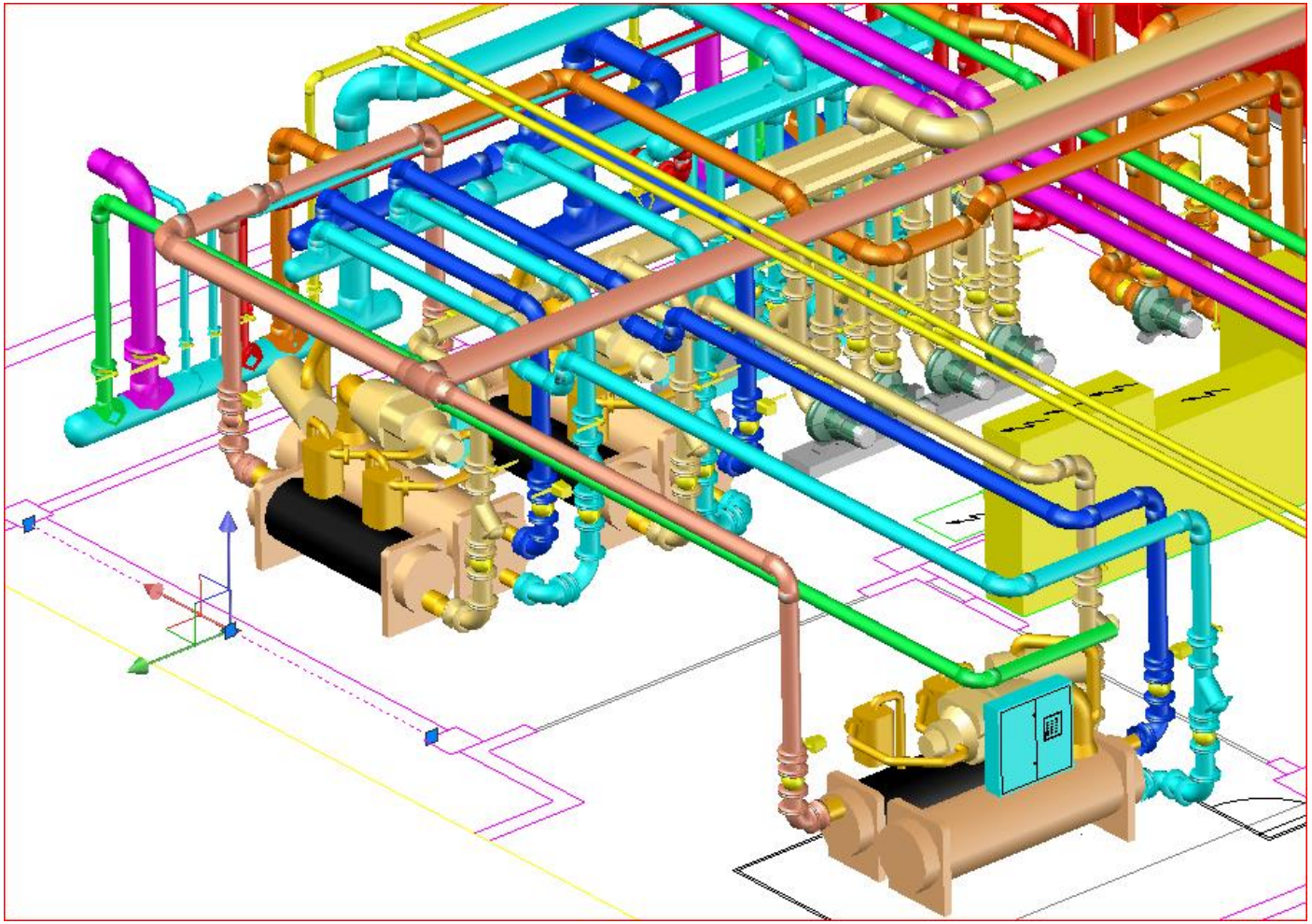
Main Advantages of AX3000



Construction and detailed planning

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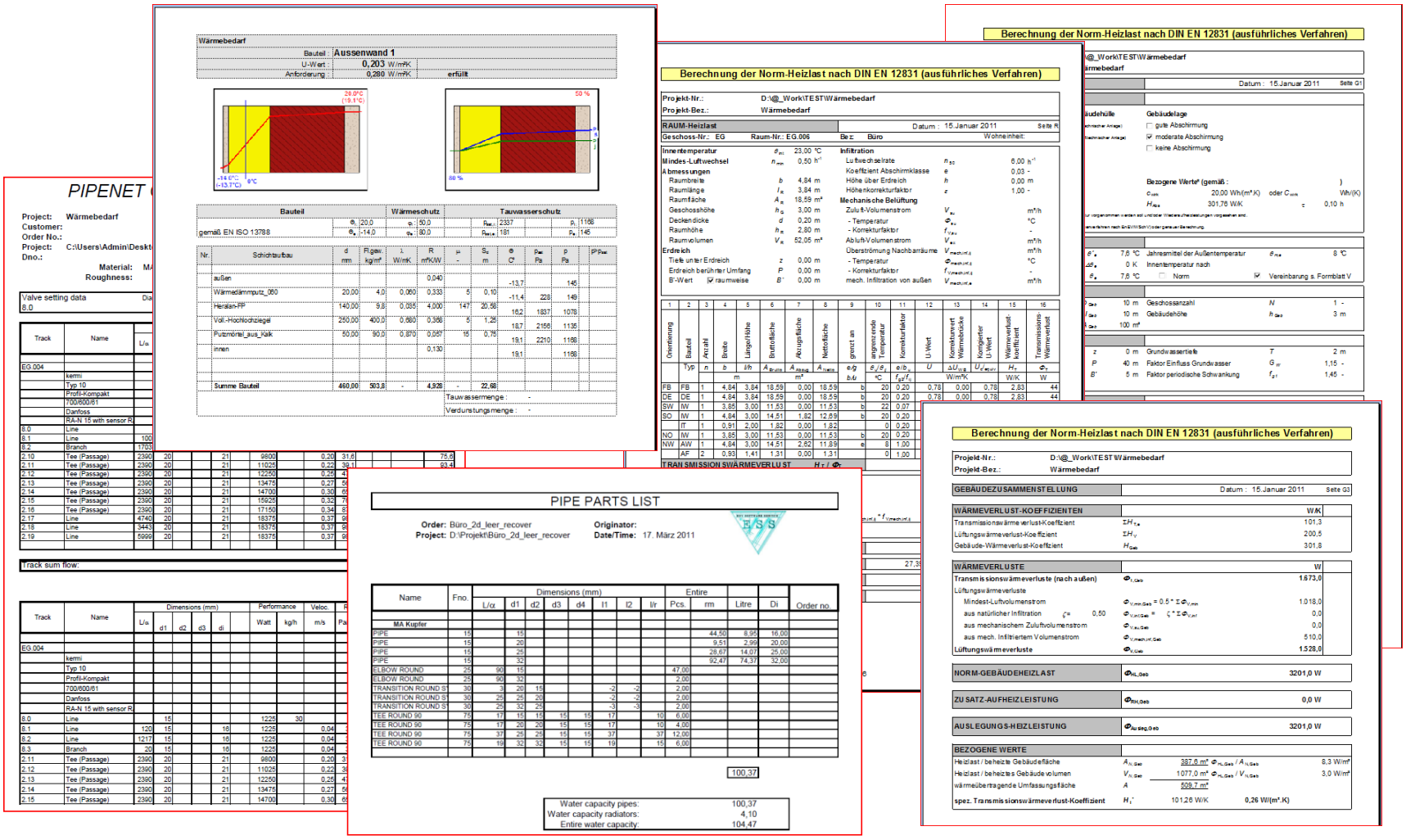
Main Advantages of AX3000



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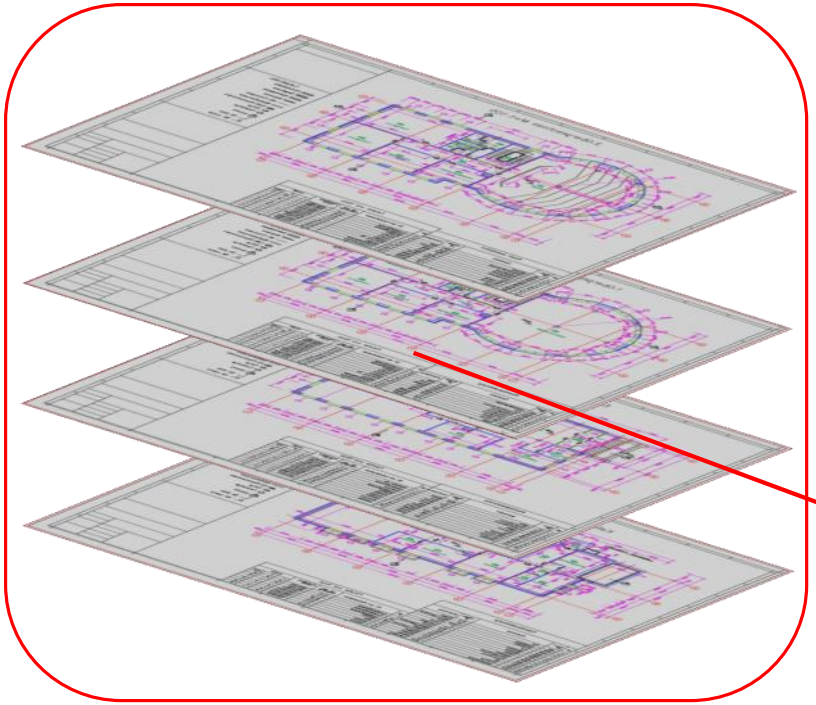

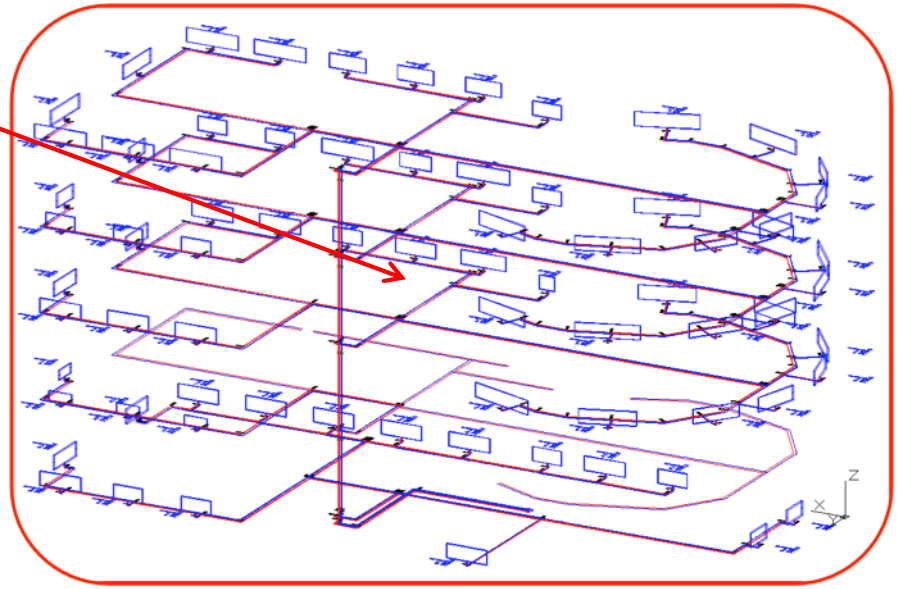

Overall drawing workflow

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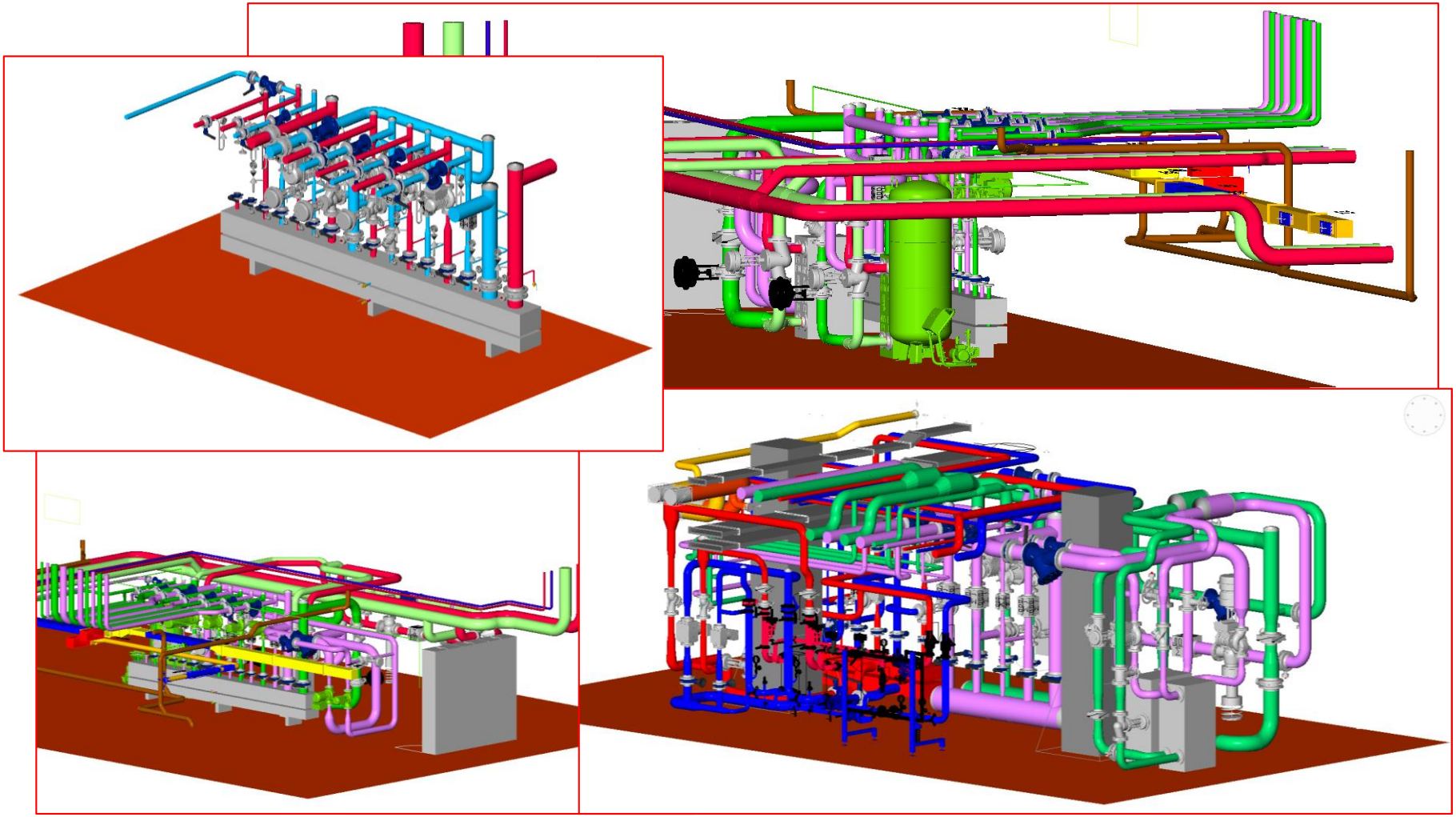
Main Advantages of AX3000



Compatible to all CAD systems

AX3000

AX3000
HEATING

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