

SBS Lift Forum on BIM in the lift sector
27th May 2021

State of the art and future challenges for the lift sector

Online Meeting

Marco Cogliati & Tiziano Caresani



European Federation for Elevator Small and Medium-sized Enterprises aisbl

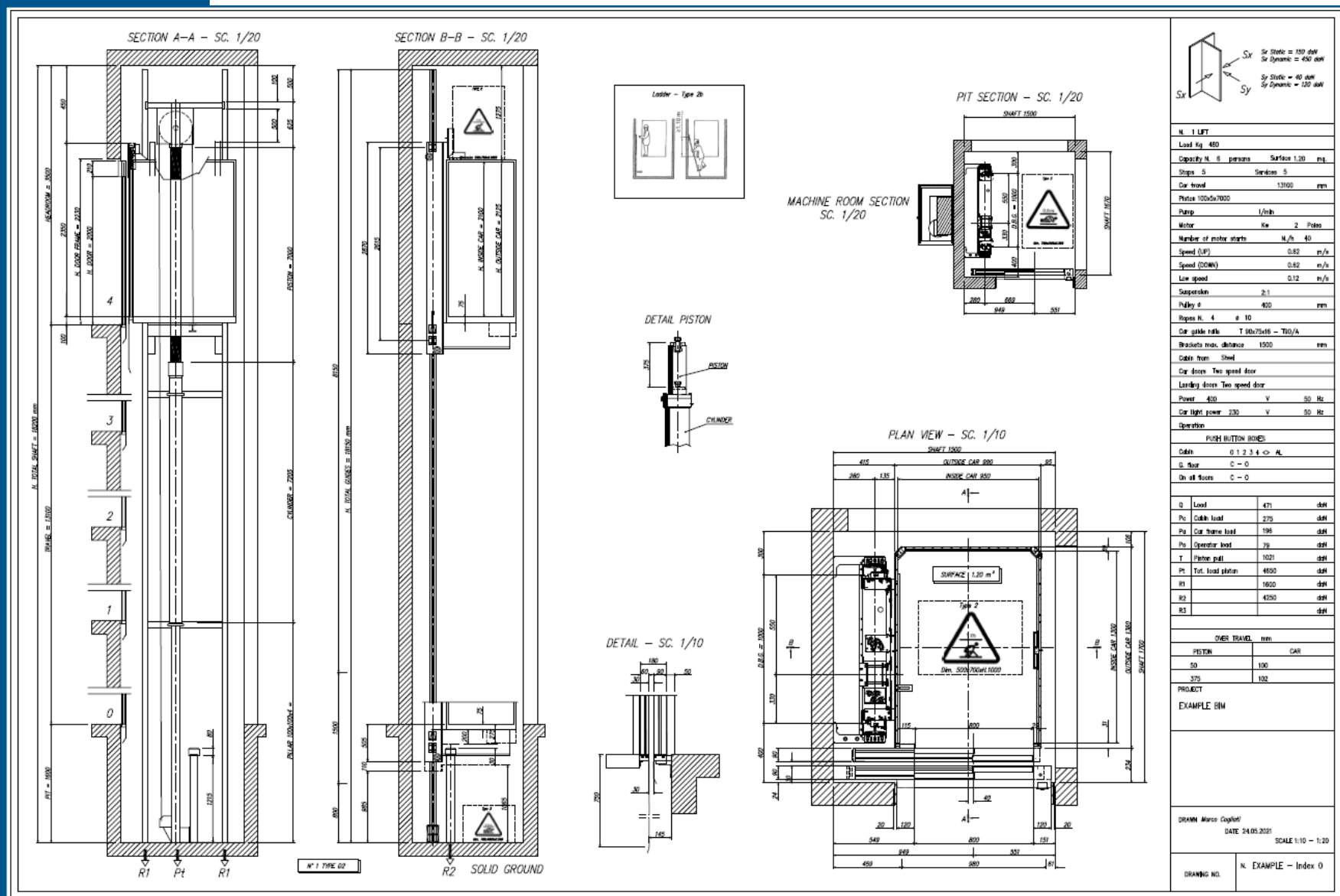
Some topics to be covered to understand the importance and inevitability of BIM in the sector

- ❖ From 2D to BIM: the design evolution
- ❖ How can lift SMEs approach BIM? Some practical advices

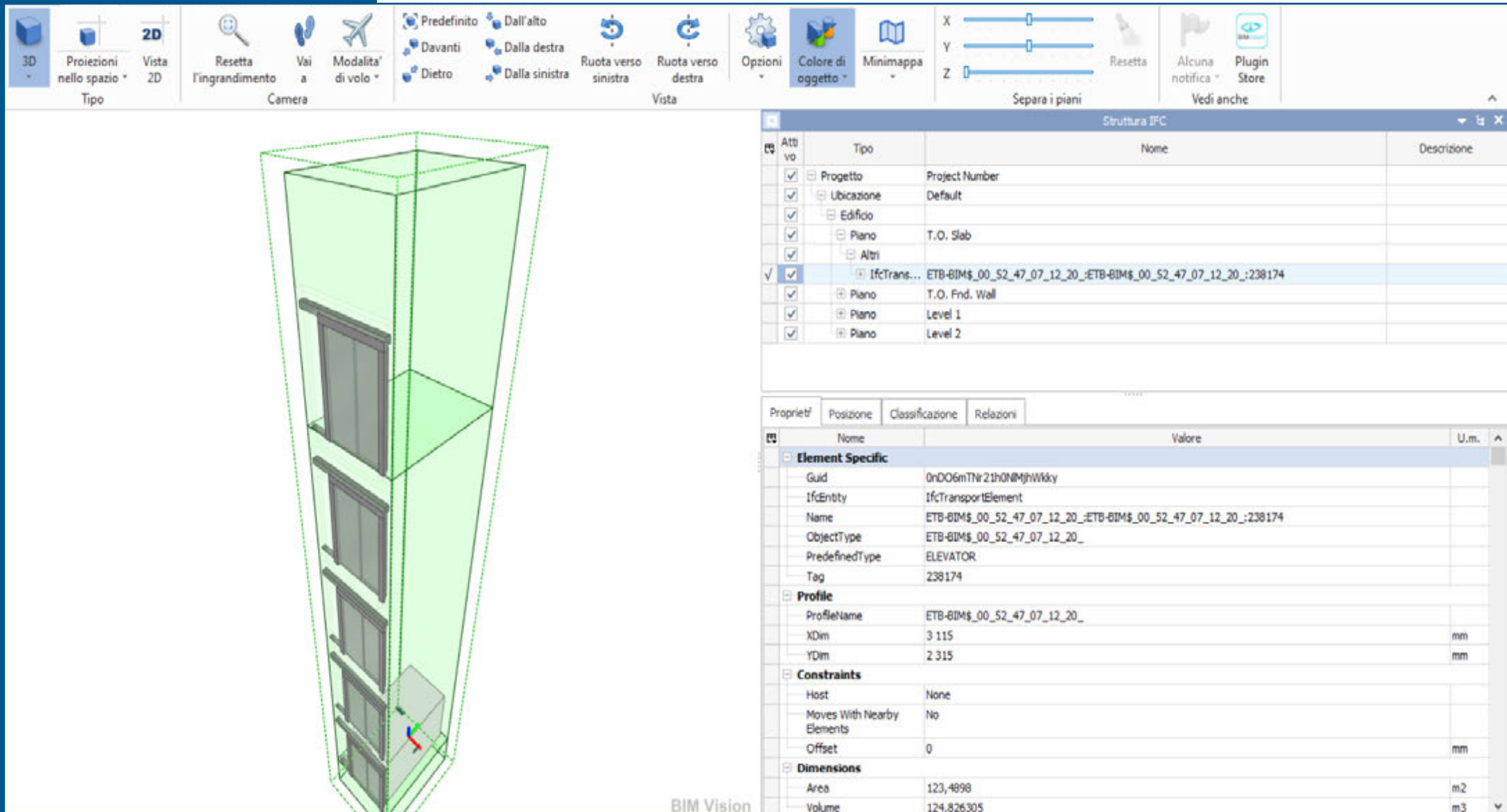
FROM 2D TO BIM

The design evolution





BIM – 3D

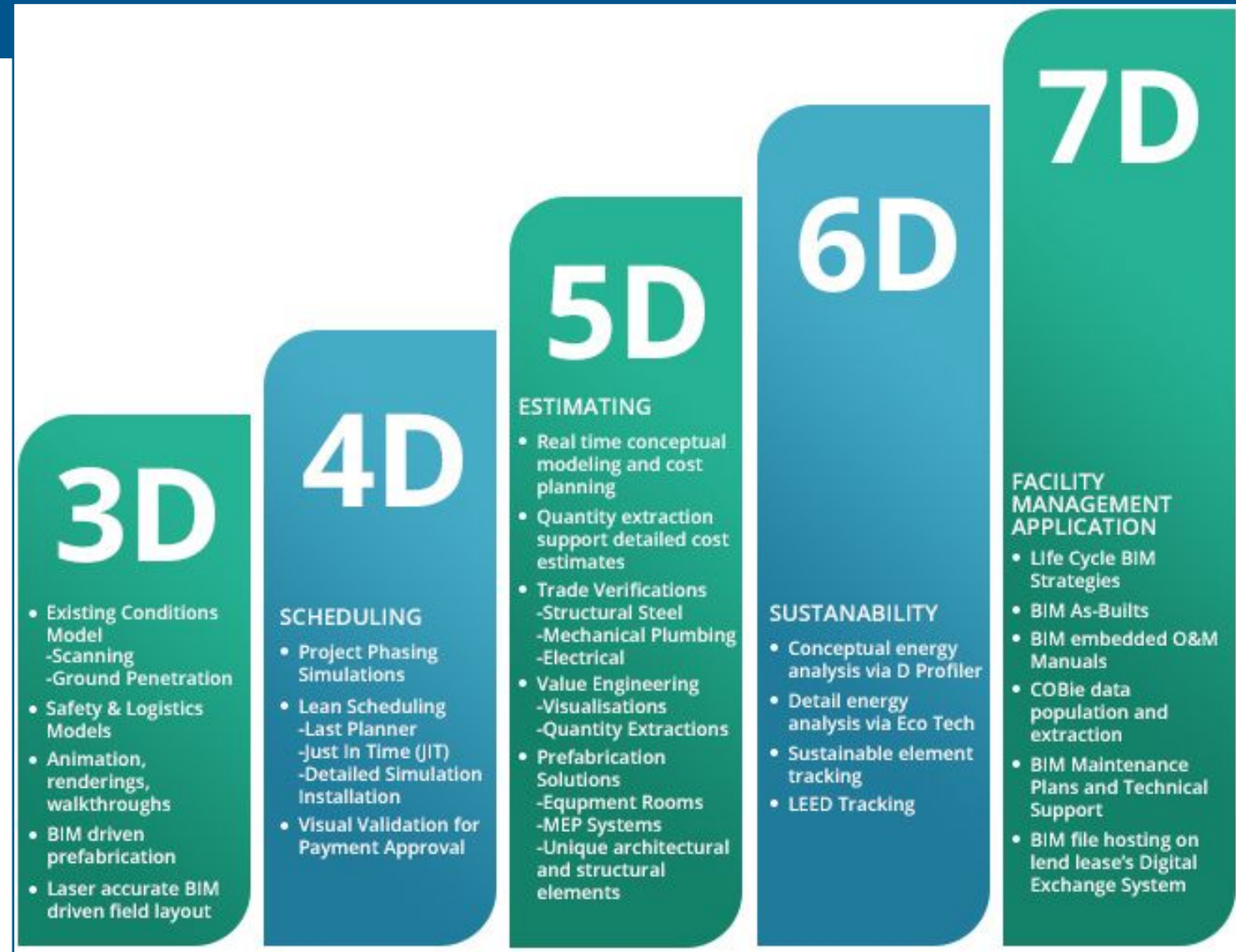


The screenshot displays the BIM Vision software interface. On the left, a 3D model of a building is shown in a perspective view. The top toolbar contains various navigation and viewing tools, including buttons for 3D, Proiezioni nello spazio, Vista 2D, Resetta l'ingrandimento, Vai a, Modalità di volo, Predefinito, Dall'alto, Davanti, Dalla destra, Dietro, Dalla sinistra, Ruota verso sinistra, Ruota verso destra, Opzioni, Colore di oggetto, Minimappa, and sliders for X, Y, and Z axes. The right panel shows the 'Struttura IFC' (IFC Structure) tree, which lists the hierarchy of the model. The selected element is 'IfcTrans...', which is an elevator. The bottom panel shows the 'Proprietà' (Properties) tab, which displays the properties of the selected element, including its name, classification, and dimensions.

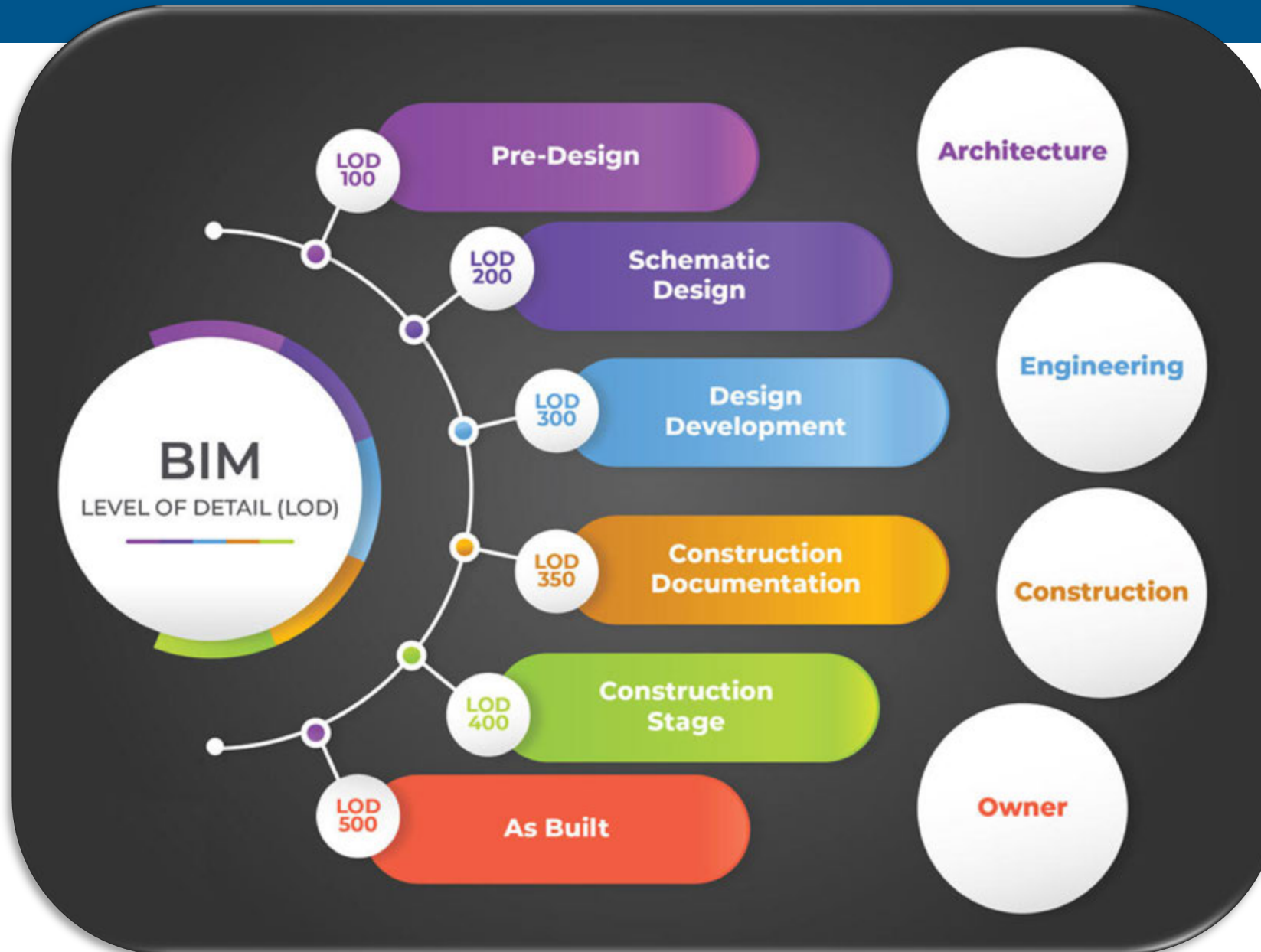
Attivo	Tipo	Nome	Descrizione
<input checked="" type="checkbox"/>	Progetto	Project Number	
<input checked="" type="checkbox"/>	Ubicazione	Default	
<input checked="" type="checkbox"/>	Edificio		
<input checked="" type="checkbox"/>	Piano	T.O. Slab	
<input checked="" type="checkbox"/>	Altri		
<input checked="" type="checkbox"/>	IfcTrans...	ETB-BIM\$_00_52_47_07_12_20_;ETB-BIM\$_00_52_47_07_12_20_;238174	
<input checked="" type="checkbox"/>	Piano	T.O. Fnd. Wall	
<input checked="" type="checkbox"/>	Piano	Level 1	
<input checked="" type="checkbox"/>	Piano	Level 2	

Proprietà	Posizione	Classificazione	Relazioni
Element Specific			
Guid	0nDO6mTNr21h0NMjhWkky		
IfcEntity	IfcTransportElement		
Name	ETB-BIM\$_00_52_47_07_12_20_;ETB-BIM\$_00_52_47_07_12_20_;238174		
ObjectType	ETB-BIM\$_00_52_47_07_12_20_		
PredefinedType	ELEVATOR		
Tag	238174		
Profile			
ProfileName	ETB-BIM\$_00_52_47_07_12_20_		
XDim	3 115		mm
YDim	2 315		mm
Constraints			
Host	None		
Moves With Nearby Elements	No		
Offset	0		mm
Dimensions			
Area	123,4898		m2
Volume	124,826305		m3

BIM Dimensions



BIM Level of detail



LOD – Level of detail

The information required for LOD is of two types:

Geometric parameters (LOG - Level of Geometry)

3D drawings of the product (compartment dimensions, cabin, doors...)

Non-geometric parameters (LOI - Level of Information)

General information (load capacity, capacity, speed...)


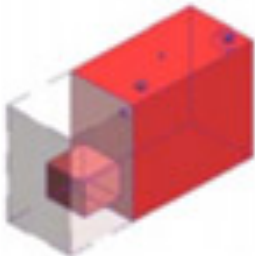



The detail of the quantity/quality of the information to provide depends on the stage the project is at.

Phase	Concept	Preliminary design	Developed design	Detailed design	Construction	Operation
Model Element						
Stairs, ladders and ramps	200	200	300	400	500	
Platforms and landings	200	200	300	400	500	
Roof	200	200	300	350		
Seismic bracing		200	300	400	500	
Chambers and manholes	200	200	300	400	500	
Maintenance and access zones	200	200	300	300		
Building services						
Plumbing systems	200	200	200	300		200
Electrical systems	200	200	200	300		200
Security system	200	200	200	300		200
Firefighting system	200	200	200	300		200
Lifts and escalators	200	200	200	300		200

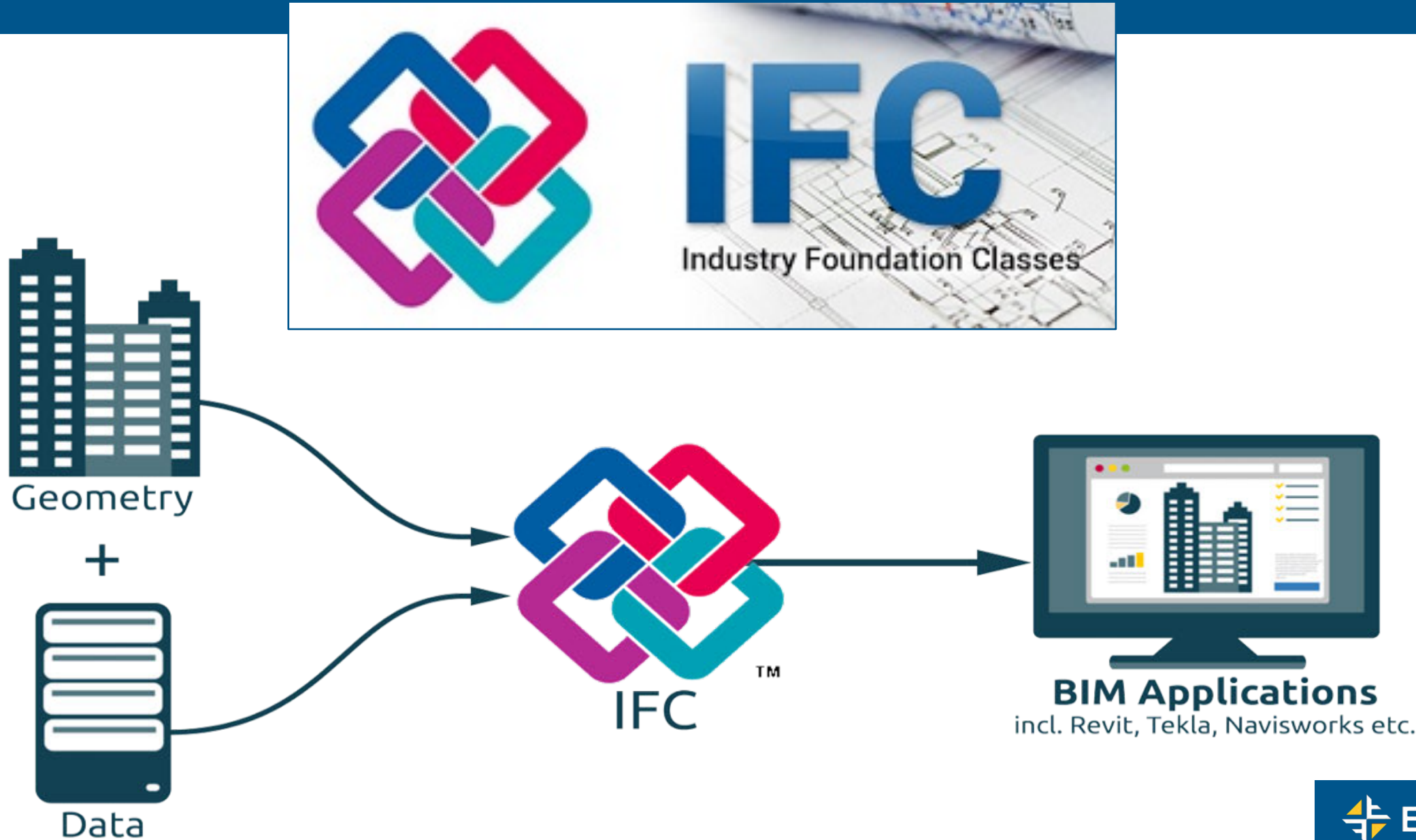
Example



BIM – Documentation

LOD 100 Conceptual	LOD 200 Approximate geometry	LOD 300 Precise geometry	LOD 400 Fabrication	LOD 500 As-built
				
<p>The Model Element may be graphically represented in the Model with a symbol or other generic representation, but does not satisfy the requirements for LOD 200. Information related to the Model Element (i.e. cost per square metre, etc.) can be derived from other Model Elements.</p>	<p>The Model Element is graphically represented in the Model as a generic system, object, or assembly with approximate quantities, size, shape, location, and orientation.</p> <p>Non-graphic information may also be attached to the Model Element.</p>	<p>The Model Element is graphically represented in the Model as a specific system, object, or assembly accurate in terms of quantity, size, shape, location, and orientation.</p> <p>Non-graphic information may also be attached to the Model Element.</p>	<p>The Model Element is graphically represented in the Model as a specific system, object, or assembly that is accurate in terms of quantity, size, shape, location, and orientation with detailing, fabrication, assembly, and installation information.</p> <p>Non-graphic information may also be attached to the Model Element.</p>	<p>The Model Element is a field verified representation accurate in terms of size, shape, location, quantity, and orientation.</p> <p>Non-graphic information may also be attached to the Model Element.</p>

BIM – File ICF



BIM – Documentation



What openBIM does for you

The transversality of the BIM approach requires maximum accessibility of information to all stakeholders.

The key to this accessibility is the IFC – acronym for **Industry Foundation Classes** – the **open international standard** developed by buildingSMART and used by the most widely used and common design software.

Lifts, good hoists, elevating platforms, escalators

Standardised models

- 3D objects
- Product features :
- Maintenance management
- ON-LINE libraries
- Market : Worldwide visibility

BIM – Libraries

bimobject Browse BIM objects Categories About us For manufacturers































Filter products

- File types (69)
- Brands (2,091)
- BIM object categories (22)
- Regions (8)

92,538 product families 2,091 brands

Popular New Trending

Missing a manufacturer?

 Round Coffee Table ZAGAS	 BOHÈME Bookcase with Low sideboard ZAGAS	 MOBIL close-coupled toilet w/ dual outlet - floor Santana	 Stop 573-2 NC Nordic Care	 Modernform Manager desk right cabinet Asdish A Modernform Workplace	 Bow Washbasin Semi-countertop 50cm 1 Taphole Sottini	 Iris TV Cabinet Animovel	 STRADA BSN UN 900 GLS WHIT 2 DRAW & WTOP Ideal Standard	 DuraStyle Basic floor-mounted toilet 218209 DURAVIT	 MOSAICO 150X50 BASE+SEATS 302.89.R+302.15... Sancal
 Zono R2B	 Chimney Standard Hood Beta 90 Black Electrolux	 Setu Chair and Lounge Chair Herman Miller Inc.	 Synthesis® Steri-Center - 12' Midmark	 Square Dining Table ZAGAS	 Julia 164 NC Nordic Care	 SIAMGRAND Aluminium Door sliding (s-f) NOVA Siagrand	 Scandinavia 370X373 Kinnarps	 Cappellini Elan Lounge Furniture Haworth US	 ARQ ZERO Shower Tray 1200x900mm Acquabella
 FINSA	 Electrolux	 Easi Luxe	 hansgrohe	 modus	 Talentì	 ICOOS	 XL	 SAMES	 SAMES



BIM – Libraries

The screenshot displays a BIM library website. At the top, a navigation menu lists various product categories: Building Materials, Construction, Doors, Furniture, HVAC, Kitchen, Landscaping, Lighting, Plumbing, Sanitary, Walls, and Windows. Below the menu, a search bar is visible. The main content area features a grid of product models, including a Round Coffee Table, BOHÈME Bookcase, MOBIL close-coupled toilet, Stop 573-2 sofa, Modernform desk, and Bow Washbasin Semi. A sidebar on the left provides filters for products, such as File types (69), Brands (2,091), BIM object categories (22), and Regions (8). A top banner promotes a 'Try out our early v' version with a 'Hey! Ho! Let's go' link.

Try out our early v
Hey! Ho! Let's go →

Search result

Building Materials
Construction
Doors
Furniture
HVAC
Kitchen
Landscaping
Lighting
Plumbing
Sanitary
Walls
Windows

Filter products

File types (69)
Brands (2,091)
BIM object categories (22)
Regions (8)

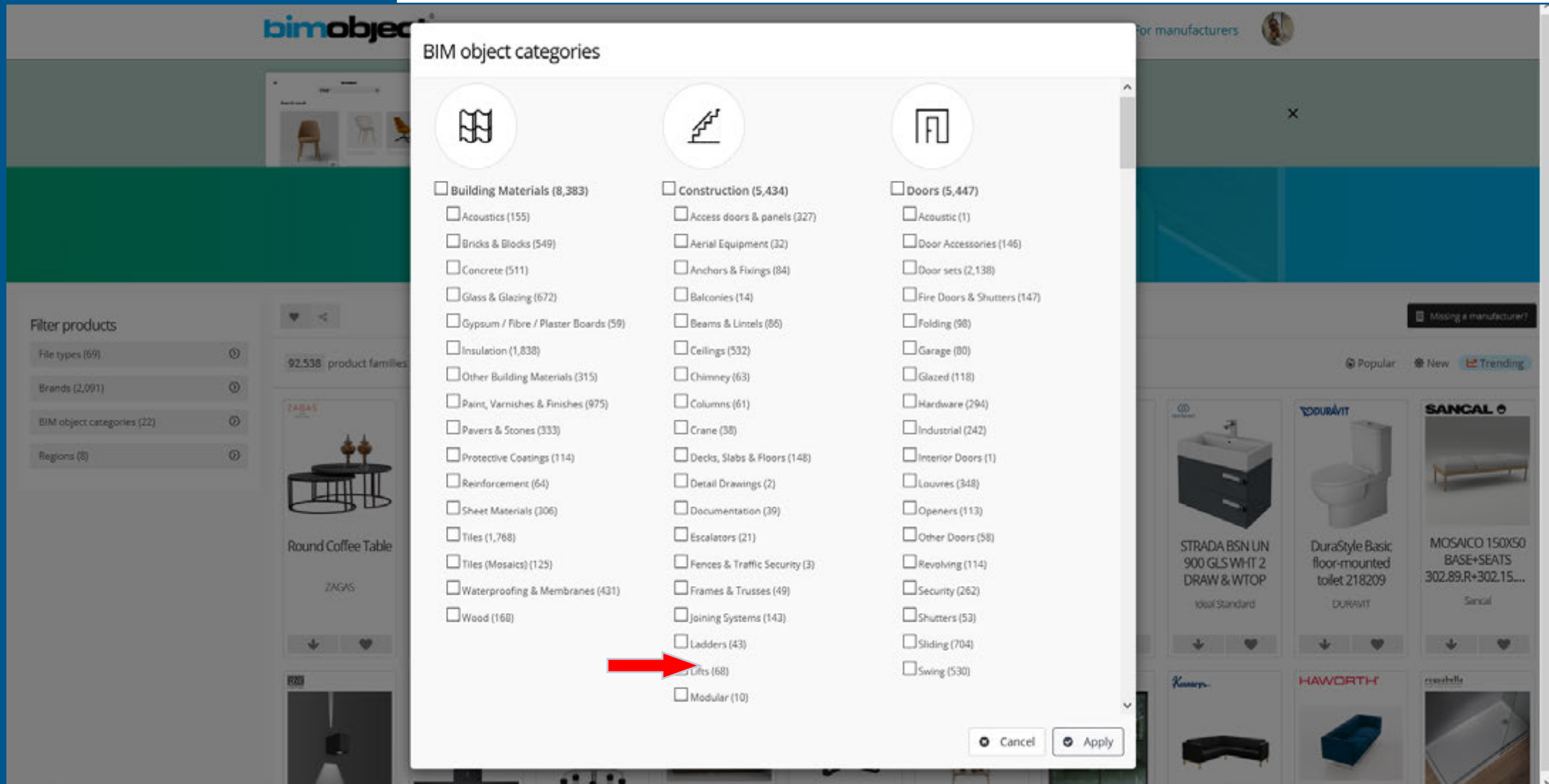
92,538 product families 2,091 brands

Popular New Trending

Missing a manufacturer?

Round Coffee Table
BOHÈME Bookcase
MOBIL close-coupled
Stop 573-2
Modernform
Bow Washbasin Semi

BIM – Libraries



BIM – Libraries

bimobject Browse BIM objects Categories - About us - For manufacturers

Filter products

- File types (15)
- Brands (13)
- BIM object categories (22)
- Regions (8)

Construction

- Access doors & panels
- Aerial Equipment
- Anchors & Fixings
- Balconies
- Beams & Lintels
- See more

68 product families 13 brands

BIM object categories: Lifts - Riser filters

Popular New Trending

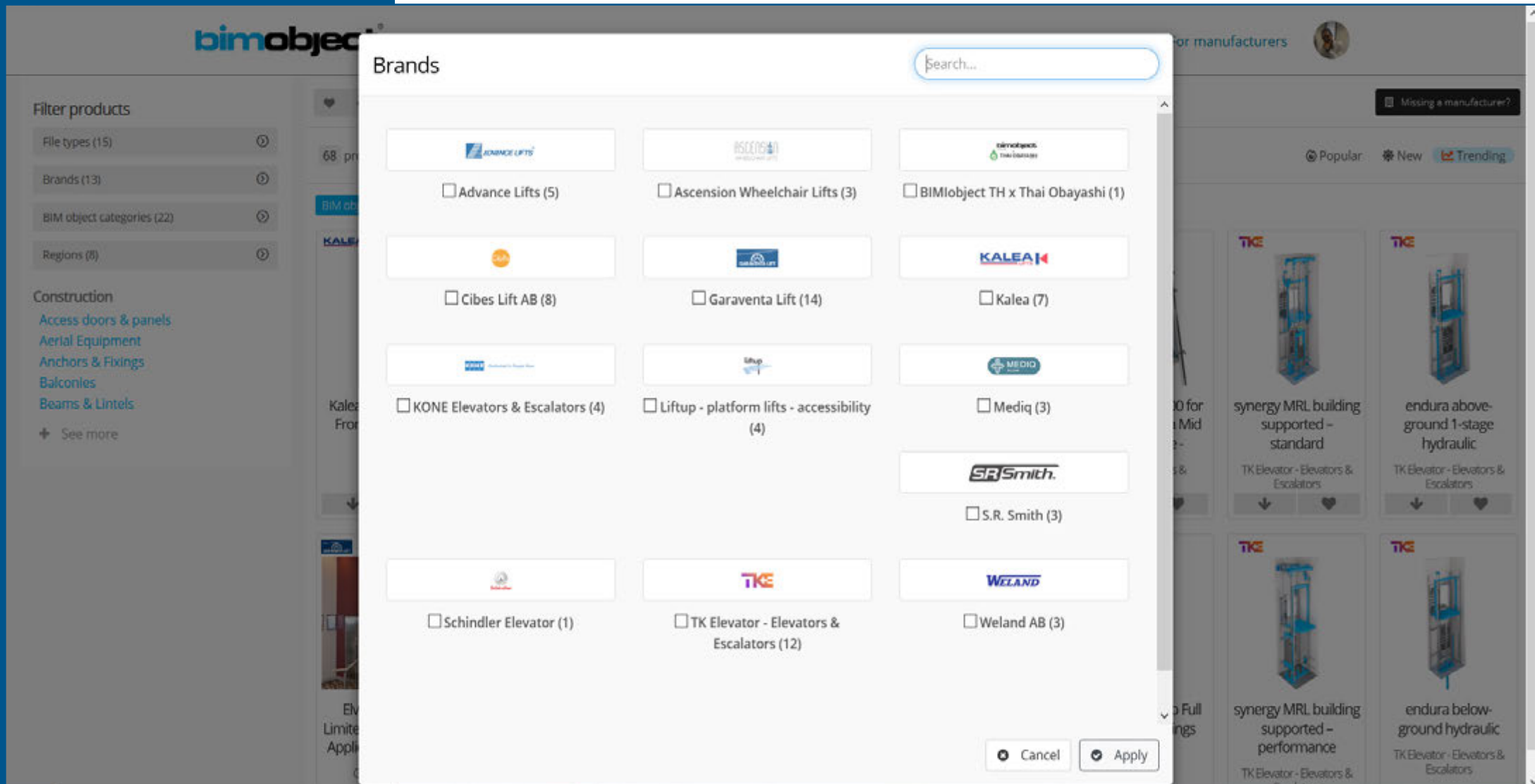
Missing a manufacturer?

Grid of product cards (3 rows, 12 columns):

- Kalea A4 Primo Full Front - 3 landings (Kalea)
- momentum high-rise - performance (TK Elevator - Elevators & Escalators)
- Genesis OPAL - Vertical Platform Lifts (Garaventa Lift)
- MonoSpace 500 for North America - Low to Mid Rise (KONE Elevators & Escalators)
- momentum high-rise - standard (TK Elevator - Elevators & Escalators)
- MonoSpace 700 for North America Mid to High Rise (KONE Elevators & Escalators)
- synergy MRL building supported - standard (TK Elevator - Elevators & Escalators)
- endura above-ground 1-stage hydraulic (TK Elevator - Elevators & Escalators)
- Euron LULA - Limited Use / Limited Application (Garaventa Lift)
- CIBES AS000 Fullfront - Adjacent (Obes Lift AB)
- Basic a/s Aquatic Lift, 360 deg Rotation (S.R. Smith)
- endura MRL above-ground 3-stage (TK Elevator - Elevators & Escalators)
- Schindler 3300 low-rise MRL elevator (Schindler Elevator)
- Kalea A4 Primo Full Front - 4 landings (Kalea)
- synergy MRL building supported - performance (TK Elevator - Elevators & Escalators)
- endura below-ground hydraulic (TK Elevator - Elevators & Escalators)
- CIBES AS000 Half front - Single-entry (Obes Lift AB)
- endura above-ground 2-stage hydraulic (TK Elevator - Elevators & Escalators)
- synergy MRL self supported (TK Elevator - Elevators & Escalators)
- Protégé Portable and Permanent Wheelchair Lift (Assension Wheelchair Lifts)
- Kalea A4 Primo Full Front - 5 landings (Kalea)
- endura MRL above-ground 1-stage hydraulic (TK Elevator - Elevators & Escalators)
- Kalea A4 Primo Full Front - 2 landings (Kalea)
- endura above-ground 3-stage hydraulic (TK Elevator - Elevators & Escalators)
- CIBES AS000 Fullfront - Single-entry (Obes Lift AB)
- CIBES AS000 Fullfront - Open through (Obes Lift AB)
- BIMobject TH x Thai Obayashi Passenger (BIMobject TH x Thai Obayashi)
- SPLASH! Pool Lift, 359 deg Rotation (S.R. Smith)
- Genesis Shearway - Vertical Platform Lifts (Garaventa Lift)
- Genesis Enclosure - Vertical Platform Lifts (Garaventa Lift)
- MinSpace for North America - Mid to High Rise (KONE Elevators & Escalators)
- endura MRL above-ground 2-stage hydraulic (TK Elevator - Elevators & Escalators)
- Clarity 16 Enclosed Wheelchair Lift (Assension Wheelchair Lifts)
- CIBES AS000 Fullfront - Open through and (Obes Lift AB)
- Kalea A4 Primo Half Front - 2 landings (Kalea)
- Kalea A4 Primo Design Pack (Kalea)
- Kalea A4 Primo Full Front - 6 landings (Kalea)
- PAL Pool Lift, Portable, 300 lb Lifting Capacity, 240 (S.R. Smith)
- CIBES AS000 Half front - Open through (Obes Lift AB)
- Multi Stage (MSL) Series Lift Tables (Advance Lifts)
- Virtuoso Wheelchair Lift (Assension Wheelchair Lifts)
- EasyLift - lifting platform lift - lift for Liftup - platform lifts - accessibility




BIM – Libraries



BIM – Libraries

bimobject
Browse BIM objects Categories About us For manufacturers

BiMobject / Brands / TK Elevator - Elevators & Escalators / Products / synergy MRL building supported – standard



synergy MRL building supported – standard

Unique ref.: synergy-MRL-building-supported-standard-NA

Brand: TK Elevator - Elevators & Escalators

Product family: elevator

Product group: synergy elevator

Date of publishing: 2018-06-01

Edition number: 1

Type: Object (single object)

Download (4)


♥







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Description	Links	Related	Classification	Region
<p>The synergy MRL building supported – standard is a gearless traction elevator.</p> <p>It's ideal for buildings with total floor travel up to 300 feet.</p> <p>Features and benefits:</p> <ul style="list-style-type: none">• Provides flexibility in configuration, load capacity and speed• Lack of machine room frees up building space• Regenerative or non-regenerative drives available• Travels at speeds of 200, 350 fpm• Capacities of 2500 – 4000 pounds• Standard cab finishes and flooring				

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NO INFORMATION IS AVAILABLE ABOUT LOCAL REPRESENTATIVES FROM THIS BRAND IN YOUR REGION
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RELATED PRODUCTS



BIM – Libraries

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For manufacturers 

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synergy MRL building supported – standard

Unique ref.: synergy-MRL-building-supported-standard-NA

Brand: TK Elevator - Elevators & Escalators


Product family: elevator




Product group: synergy elevator

Date of publishing: 2018-06-01


Edition number: 1

Type: Object (single object)


 Download (4)





Description	Links	Related	Classification	Region
Product url:	https://www.thyssenkruppelevator.com/elevator-products/synergy/building-su...			
Installation instructions:				
COBie Product Data Sheet:				
Product certification:				
Technical description:				
Instruction video:				
GTIN code:				





The Qr code includes the static URL, below and will bring you back to this page if scanned by a device like iPhone or smartphone




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 RELATED PRODUCTS



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Browse BIM objects Categories About us For manufacturers

BIMobject / Brands / TK Elevator - Elevators & Escalators / Products / synergy MRL building supported - standard



synergy MRL building supported - standard

Unique ref.: synergy-MRL-building-supported-standard-NA

Brand: TK Elevator - Elevators & Escalators


Product family: elevator




Product group: synergy elevator

Date of publishing: 2018-06-01


Edition number: 1

Type: Object (single object)

 Download (4)




Description	Links	Related	Classification	Region
Material main:	Steel			
Material secondary:				
Designed in:	United States			
Manufactured in:	Germany			



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BIM – Libraries

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For manufacturers 

BIMobject / Brands / TK Elevator - Elevators & Escalators / Products / synergy MRL building supported - standard



synergy MRL building supported - standard

Unique ref.: synergy-MRL-building-supported-standard-NA

Brand: TK Elevator - Elevators & Escalators




Product family: elevator


Product group: synergy elevator

Date of publishing: 2018-06-01


Edition number: 1



Type: Object (single object)


  


 Download (4)

Description	Unks	Related	Classification	Region
BIMobject Category:	Construction - Lifts			
Uniclass 1.4 Code:	L771			
Uniclass 1.4 Description:	Lifts			
Uniclass 2.0 Code:	SS-80-50			
Uniclass 2.0 Description:	Lift Systems			
NBS Reference Code:	80-50			
NBS Reference Description:	Lift Systems			




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



CONNECT WITH YOUR LOCAL REPRESENTATIVE



NO INFORMATION IS AVAILABLE ABOUT LOCAL REPRESENTATIVES FROM THIS BRAND IN YOUR REGION


Request sales rep.

 RELATED PRODUCTS


  
  

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BIM – Libraries

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For manufacturers 

[BIMobject](#) / [Brands](#) / [TK Elevator - Elevators & Escalators](#) / [Products](#) / synergy MRL building supported – standard



synergy MRL building supported – standard

Unique ref.: synergy-MRL-building-supported-standard-NA

Brand: TK Elevator - Elevators & Escalators


Product family: elevator




Product group: synergy elevator

Date of publishing: 2018-06-01


Edition number: 1

Type: Object (single object)

 **Download (4)**





Description	Links	Related	Classification	Region
This product is available in:				
North America				
Canada Puerto Rico United States				




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CONNECT WITH YOUR LOCAL REPRESENTATIVE




NO INFORMATION IS AVAILABLE ABOUT LOCAL REPRESENTATIVES FROM THIS BRAND IN YOUR REGION

Request sales rep.


 RELATED PRODUCTS



BIMobject®



Small Business Standards



EFESME

BIM – Libraries

The screenshot shows a BIM software interface with a 'Downloads' dialog box open. The dialog box contains four items for download:

- PDF: thyssenkrupp Revit Family Readme.pdf
- Revit: Construction_Lifts_ThyssenKrupp_Synergy Building-Supported Standard_Entrance.rfa
- Revit: Construction_Lifts_ThyssenKrupp_Synergy Building-Supported Standard (Side) Series.rfa
- Revit: Construction_Lifts_ThyssenKrupp_Synergy Building-Supported Standard (Rear) Series.rfa

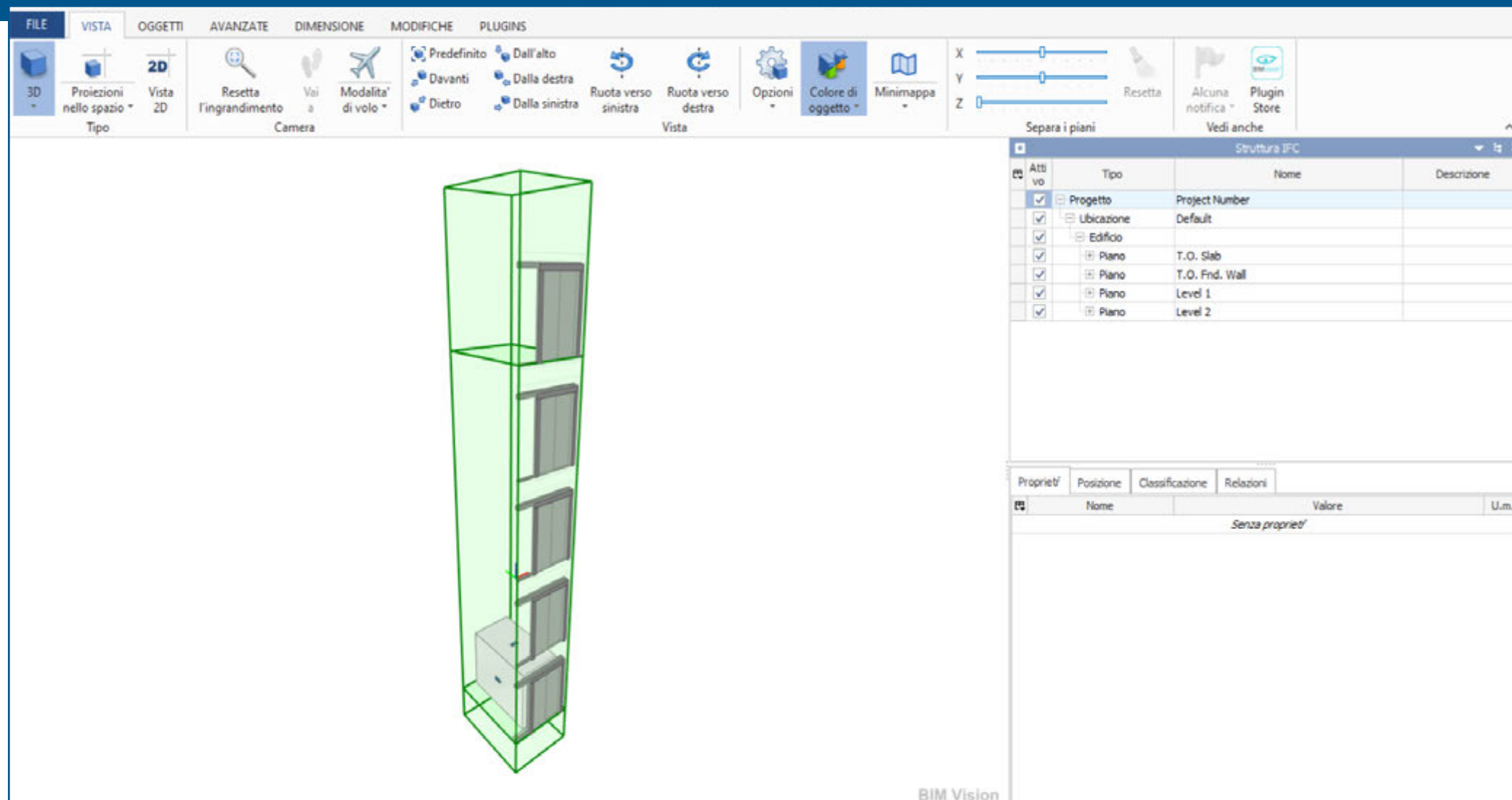
Each item has a 'Download' button. A 'Close' button is located at the bottom right of the dialog box.

Below the dialog box, the main interface shows a product page for a 'synergy elevator'. The page includes a 3D model of the elevator, a 'Download (4)' button, and a table with columns: Description, Links, Related, Classification, and Region. The 'Region' column is currently selected.

The 'Region' column shows that the product is available in North America, specifically in Canada, Puerto Rico, and the United States.

On the right side of the page, there is a section titled 'CONNECT WITH YOUR LOCAL REPRESENTATIVE' with a placeholder for a representative's profile and a 'Request sales rep.' button. Below this is a section titled 'RELATED PRODUCTS' showing several small images of different elevator models.

BIM – Libraries – File ICF



BIM – Libraries – File ICF

FILE VISTA OGGETTI AVANZATE DIMENSIONE MODIFICHE PLUGINS

Mostra tutto Resetta l'ingrandimento Oggetti Vai a Mostra Trasparenti Nascondi Evidenzia con il colore Disegna coperto Accentra la vista Ignora gli elementi trasparenti

Mostra Trasparente Nascondi

Struttura Tipi Gruppi Strati Classificazione

Nella finestra separata Mostra le proprietà Livello di espansione 1

Lista

Classificazione

Attivo	Tipo	Nome	Descrizione
<input checked="" type="checkbox"/>		Classificazione	
<input checked="" type="checkbox"/>		Uniformat - 1998 - http://www.csiorg.net/uniformat	
<input checked="" type="checkbox"/>		IfcClassificatio...	D1010
<input checked="" type="checkbox"/>		IfcTransport...	ETB-BIM\$_00_52_47_07_12_20_ETB-BIM\$_00_52_47_07_12_20_238174
<input checked="" type="checkbox"/>		Elementi non classificati	

Proprietà Posizione Classificazione Relazioni

Nome	Valore	U.m.
Panel		
General		
Door opening orientation	Side opening	
Elevator class	Goods Passenger Elevator	
Elevator product	Transys	
Number of car entrances	1	
Number of persons	26	
Rated load (kg)	2000	
Rated speed (m/s)	1.0	
Safety code	EN81-20	
Seismic	No	
Identity Data		
Assembly Code	D1010	
Assembly Description	Elevators and Lifts	
Code		
Code Name		
Creation date	2020-12-06	

BIM Vision

BIM – Libraries – File ICF

FILE VISTA OGGETTI AVANZATE **DIMENSIONE** MODIFICHE PLUGINS

Volume Superficie **Lunghezza: Bordo** Peso: Acciaio Angolo Conteggio Coordinate Pulisci la marcatura Annulla l'ultima selezione Selezione multipla Ignora gli elementi trasparenti Opzioni

Risultato [m] 4,060 Valore

Asse X 0,000
Asse Y 0,000
Asse Z 4,060 Proiezioni su assi

4.060 [m]

Struttura IFC

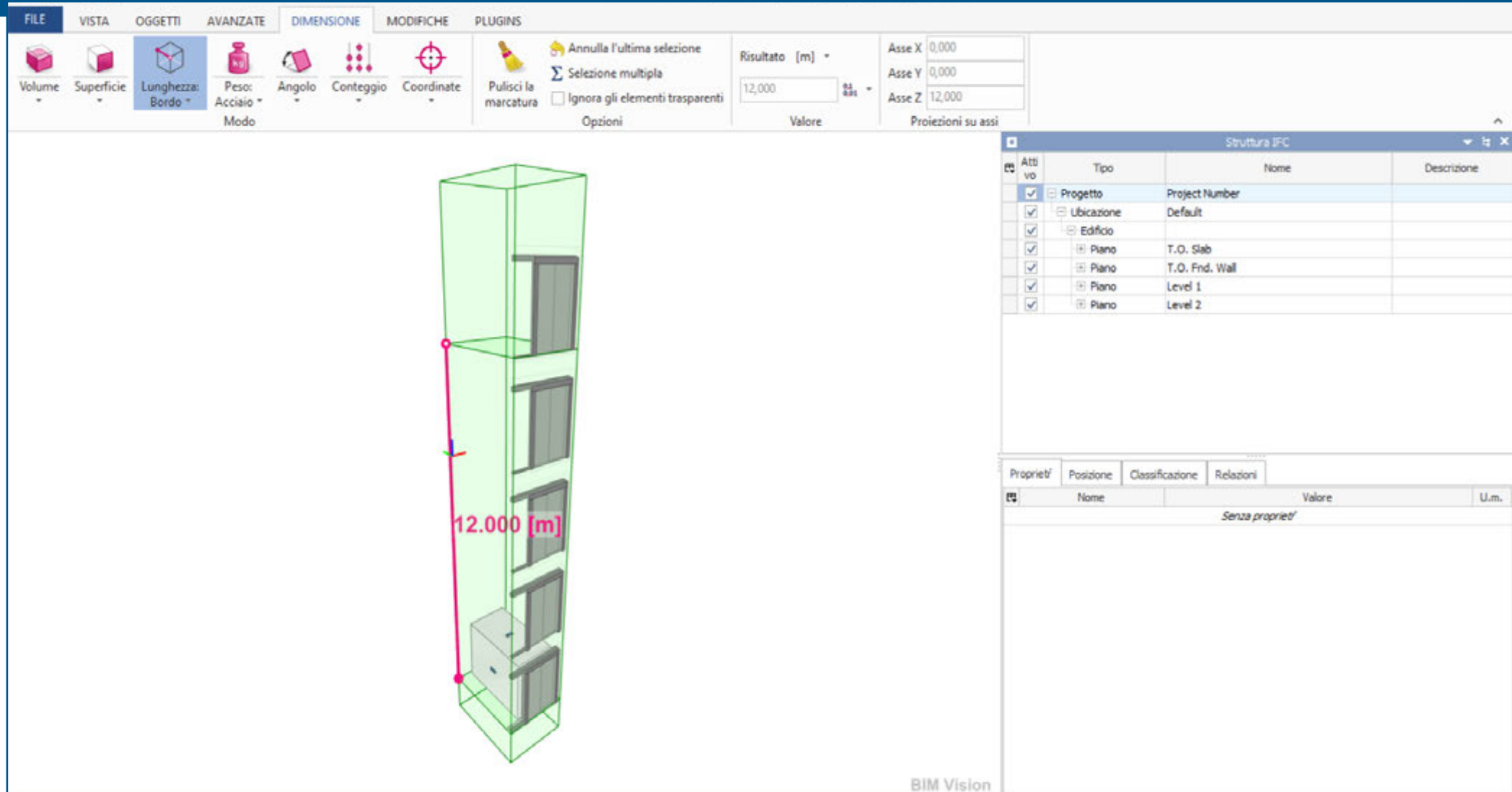
Attivo	Tipo	Nome	Descrizione
<input checked="" type="checkbox"/>	Progetto	Project Number	
<input checked="" type="checkbox"/>	Ubicazione	Default	
<input checked="" type="checkbox"/>	Edificio		
<input checked="" type="checkbox"/>	Piano	T.O. Slab	
<input checked="" type="checkbox"/>	Piano	T.O. Fnd. Wall	
<input checked="" type="checkbox"/>	Piano	Level 1	
<input checked="" type="checkbox"/>	Piano	Level 2	

Proprietà Posizione Classificazione Relazioni

Nome	Valore	U.m.
Senza proprietà		

BIM Vision

BIM – Libraries – File ICF



The screenshot displays the BIM Vision software interface. The top menu bar includes FILE, VISTA, OGGETTI, AVANZATE, DIMENSIONE, MODIFICHE, and PLUGINS. The DIMENSIONE tab is active, showing a toolbar with icons for Volume, Superficie, Lunghezza (selected), Peso, Angolo, Conteggio, and Coordinate. The Lunghezza (Length) tool is active, and a dimension of 12.000 [m] is shown on a 3D model of a building element. The right panel shows the 'Struttura IFC' (IFC Structure) table with the following data:

Attivo	Tipo	Nome	Descrizione
<input checked="" type="checkbox"/>	Progetto	Project Number	
<input checked="" type="checkbox"/>	Ubicazione	Default	
<input checked="" type="checkbox"/>	Edificio		
<input checked="" type="checkbox"/>	Piano	T.O. Slab	
<input checked="" type="checkbox"/>	Piano	T.O. Fnd. Wall	
<input checked="" type="checkbox"/>	Piano	Level 1	
<input checked="" type="checkbox"/>	Piano	Level 2	

Below the table, there is a section for 'Proprietà' (Properties) with tabs for Posizione, Classificazione, and Relazioni. The 'Proprietà' tab is active, showing a table with columns for Nome, Valore, and U.m. The table is currently empty, displaying 'Senza proprietà' (No properties).

HOW CAN LIFT SMES APPROACH BIM?

Some practical advices

BIM – Libraries – File ICF

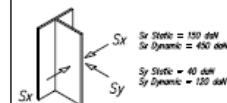
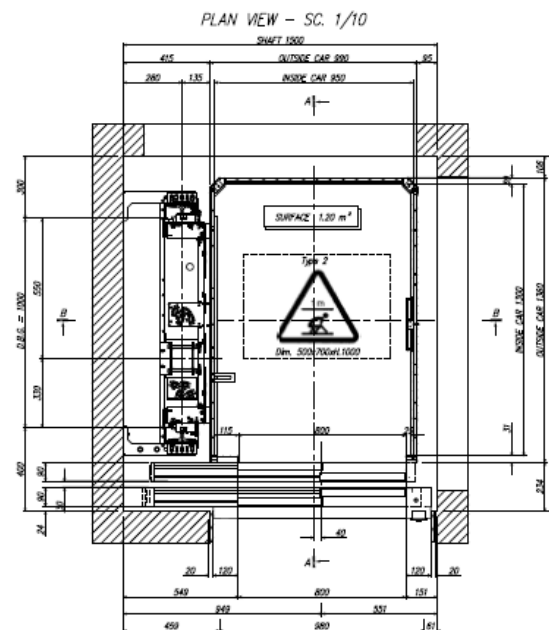
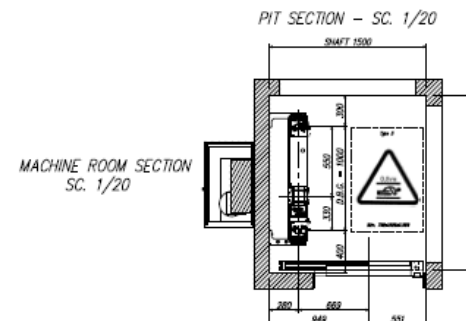
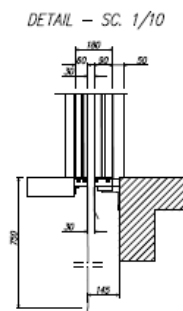
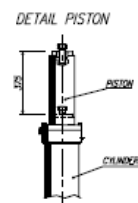
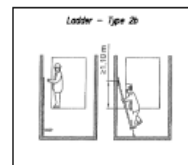
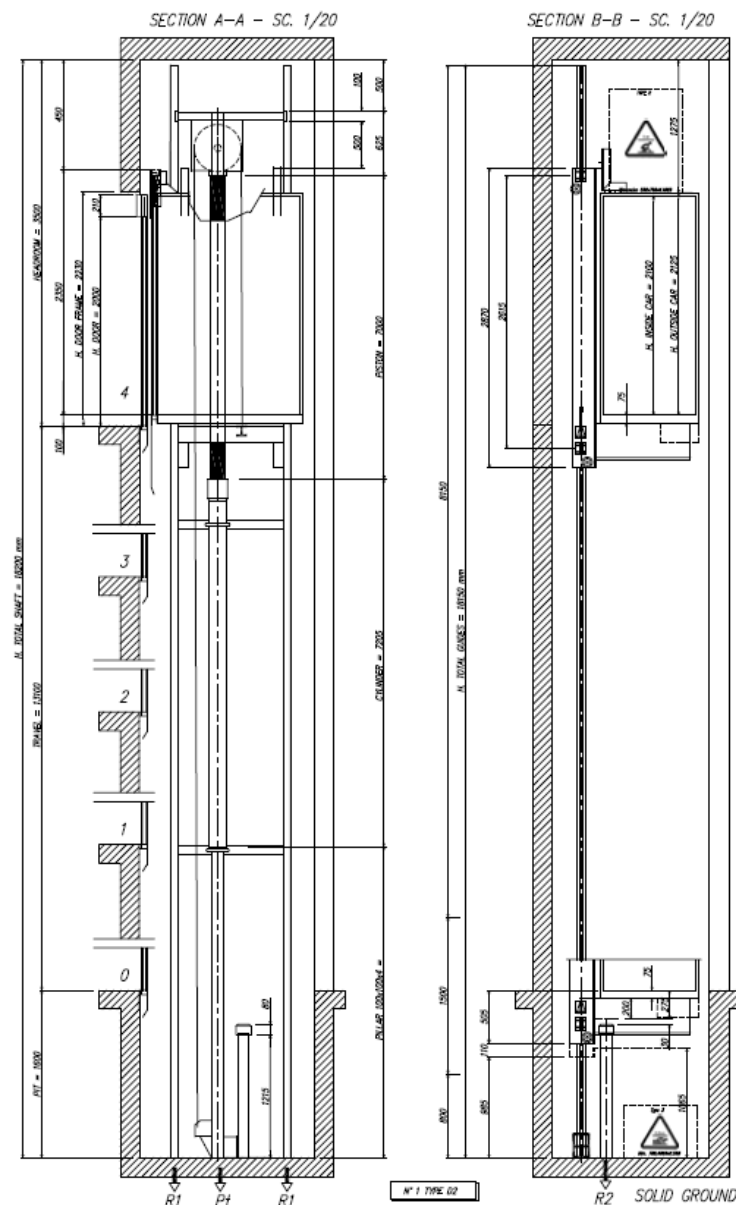
Struttura IFC

Attivo	Tipo	Nome	Descrizione
<input checked="" type="checkbox"/>	Progetto	Project Number	
<input checked="" type="checkbox"/>	Ubicazione	Default	
<input checked="" type="checkbox"/>	Edificio		
<input checked="" type="checkbox"/>	Piano	T.O. Slab	
<input checked="" type="checkbox"/>	Altri		
<input checked="" type="checkbox"/>	IfcTrans...	ETB-BIM\$_00_52_47_07_12_20_:ETB-BIM\$_00_52_47_07_12_20_:238174	
<input checked="" type="checkbox"/>	Piano	T.O. Fnd. Wall	
<input checked="" type="checkbox"/>	Piano	Level 1	
<input checked="" type="checkbox"/>	Piano	Level 2	

Proprietà

Proprietà	Posizione	Classificazione	Relazioni	Nome	Valore	U.m.
Location						
				Project	Project Number	
				Top Elevation	10 487	mm
				Bottom Elevation	1 890,000 192	mm
				Global Top Elevation	14 487	mm
				Global Bottom Elevation	5 890,000 192	mm
Geometry						
				Has Own Geometry	No	
				Children Have Geometry	Si	
				Global X	304,8	mm
				Global Y	-200	mm
				Global Z	5 890,000 192	mm
				Bounding Box Length	2 200	mm
				Bounding Box Width	345	mm
				Bounding Box Height	8 596,999 808	mm

The project today



N. 1 LFT			
Load/kg	480		
Capacity/M	6 persons	Surface	1,20 m ²
Steps	5	Services	5
Car travel			13100 m
Platform	1000x7000		
Pump	1/min		
Motor	Kw	2	Polos
Number of motor starts	M/h	40	
Speed (U/P)		0,82 m	
Speed (DOWN)		0,82 m	
Low speed		0,12 m	
Suspension	2-1		
Height	400		m
Wheels N.	4	10	
Car guide rail	T 90x75x6 - T50/A		
Brakeless max. distance	1500		
Cable from	Steel		
Car doors	Two speed door		
Landing doors	Two speed door		
Power	400	V	50 Hz
Car light power	230	V	50 Hz

PUSH BUTTON BOXES	
Cabin	0 1 2 3 4 \diamond AL
G. floor	C - 0
On all floors	C - 0

Q	Load	471	de
Pe	Cabin load	275	de
Pa	Car frame load	196	de
Pe	Operator load	79	de
T	Piston pull	1021	de
Pt	Tot. load piston	4650	de
R1		1650	de
R2		4250	de
R3			de

OVER TRAVEL mm	
PISTON	CAR
50	100
100	100

373	102
PROJECT	
EXAMPLE BIM	

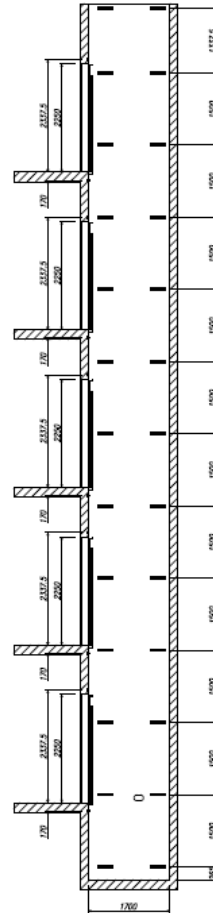
DATE 24.05.2021

SCALE 1:10 - 1:10

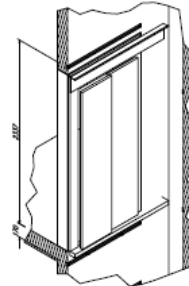
DRAWING NO.	NL EXAMPLE - Index 0
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The project today

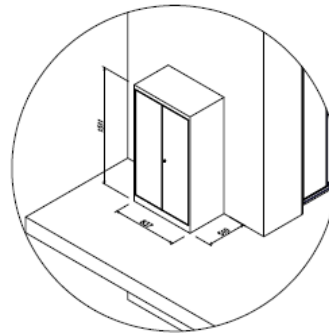
SECTION - SC. 1/40



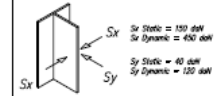
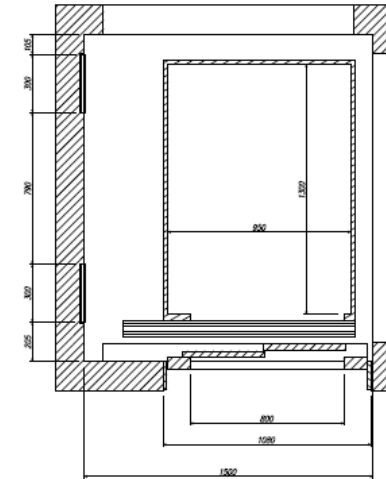
DETAIL - SC. 1/5



DETAIL - SC. 1/5



PLAN VIEW - SC. 1/10



N. 1 LIFT	
Load kg	400
Capacity N. 6 persons	Surface 1.20 m ²
Stops 5	Services 5
Car travel	13100 mm
Piston 1000x7000	
Pump	1/min
Motor	kw 2 / Poles
Number of motor starts	N./h 40
Speed (UP)	0.82 m/s
Speed (DOWN)	0.82 m/s
Low speed	0.12 m/s
Suspension	2:1
Pulley Ø	400 mm
Ropes N. 4	Ø 10
Car guide rails	T 90x75x6 - T10/A
Brackets max. distance	1500 mm
Cable from	Steel
Car doors	Two speed door
Landing doors	Two speed door
Power	400 V 50 Hz
Car light power	230 V 50 Hz
Operation	
PUSH BUTTON BOXES	
Cable	Ø 1 2 3 4 - C - M
G. floor	C - 0
On all floors	C - 0
Q Load	471 dN
Pc Cable load	275 dN
Pg Car frame load	198 dN
Po Operator load	75 dN
T Piston pull	1021 dN
Pt Tot. load piston	4650 dN
R1	1600 dN
R2	4000 dN
R3	dN

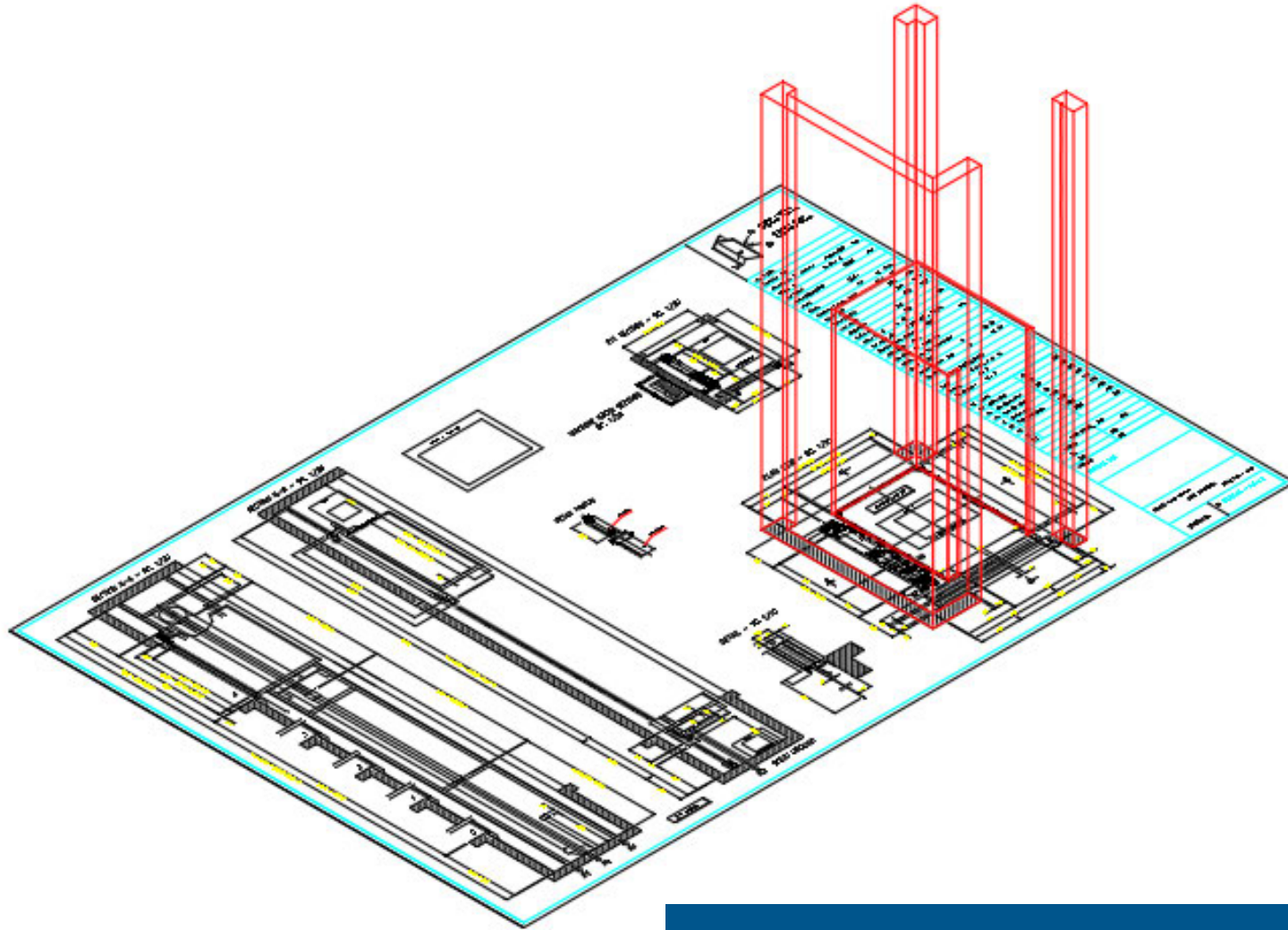
OVER TRAVEL mm	
PISTON	CAR
50	100
375	102

PROJECT
EXAMPLE BIM

DRAWN Marco Caporali
DATE 24.05.2021
SCALE 1:10 - 1:20

DRAWING NO. N. EXAMPLE - Index 0

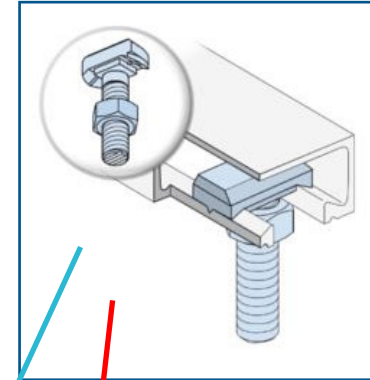
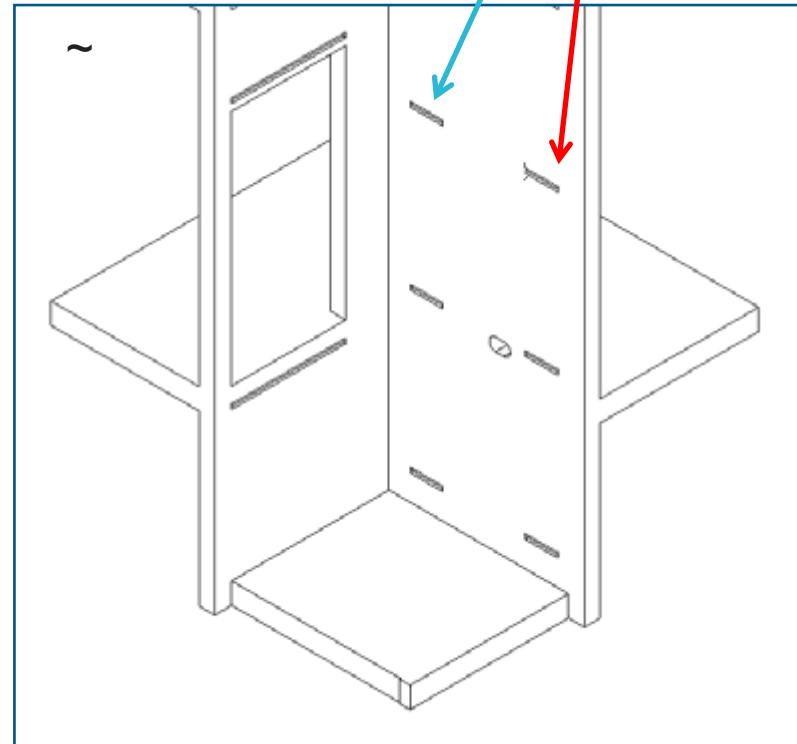
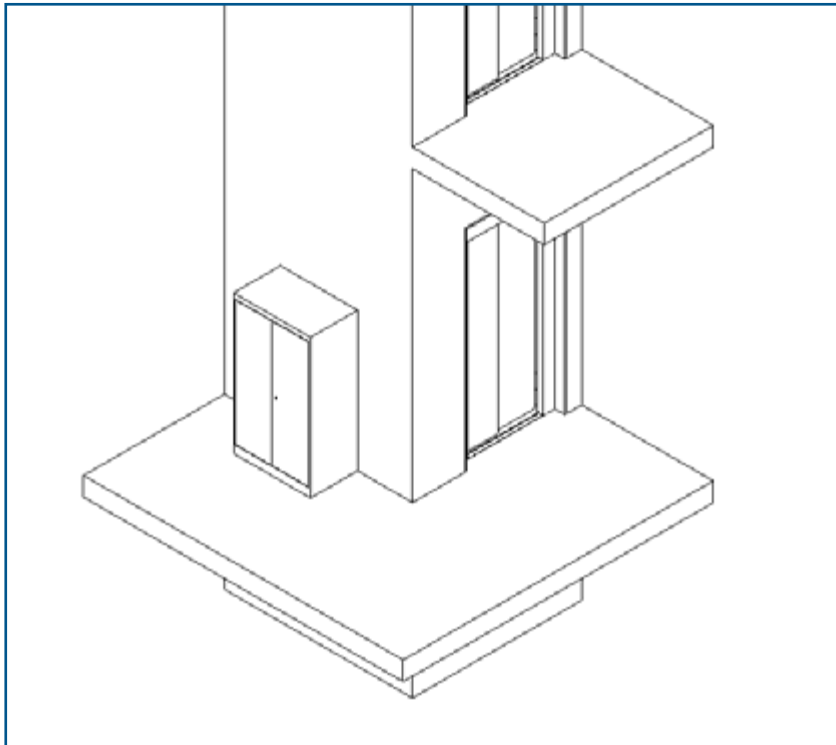
The project today



From 2D to 3D

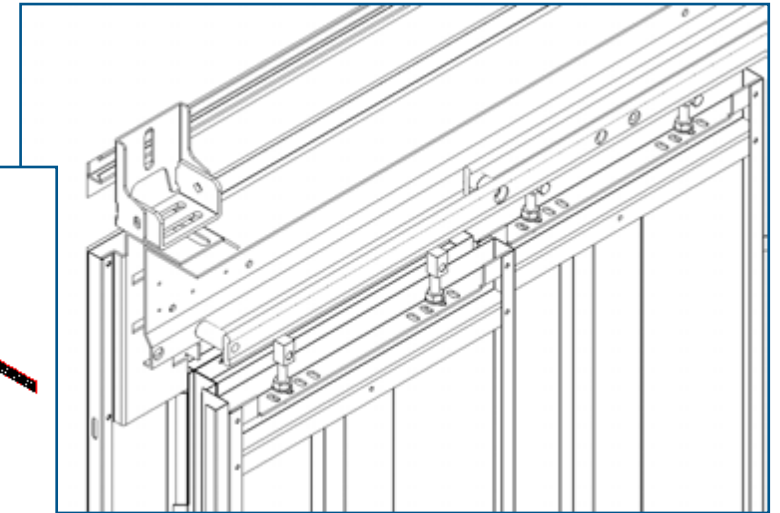
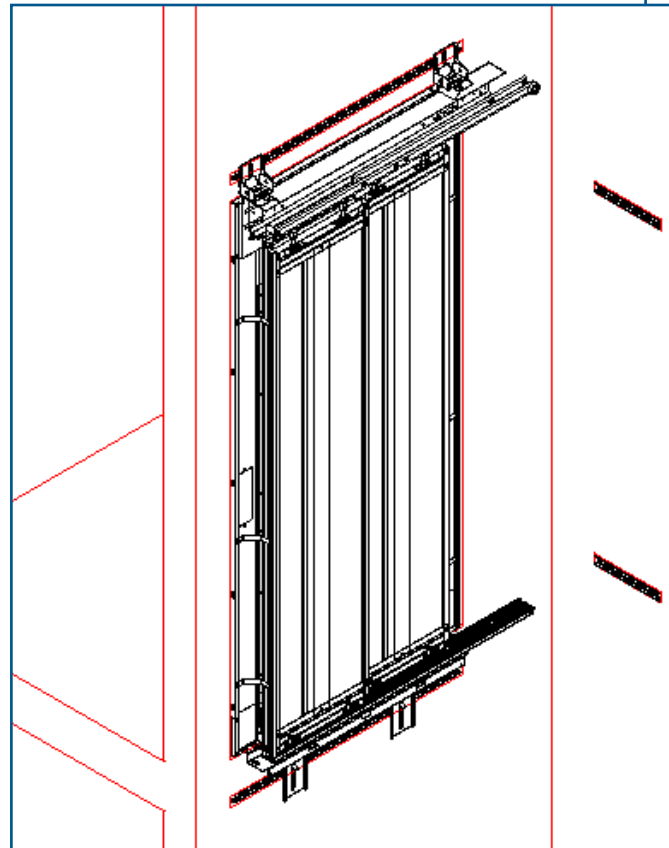
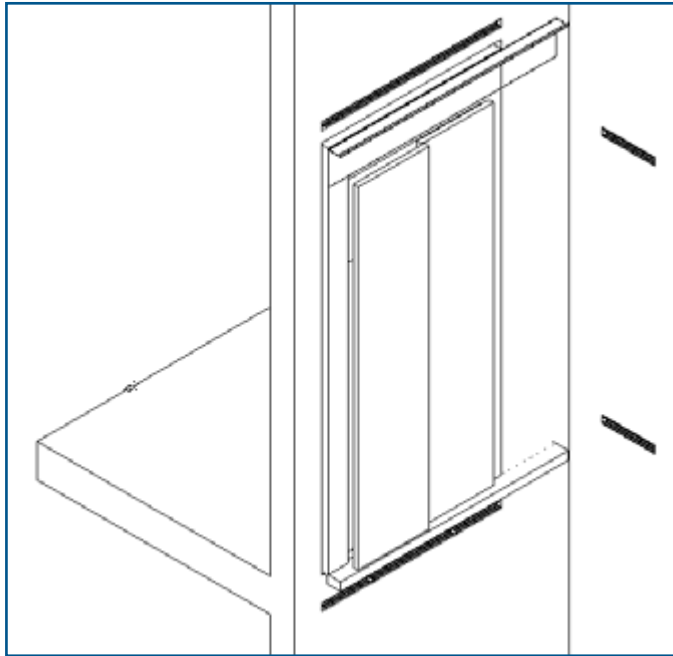
3D Model and different levels of detail (L.O.D.)

LOW L.O.D



3D Model and different levels of detail (L.O.D.)

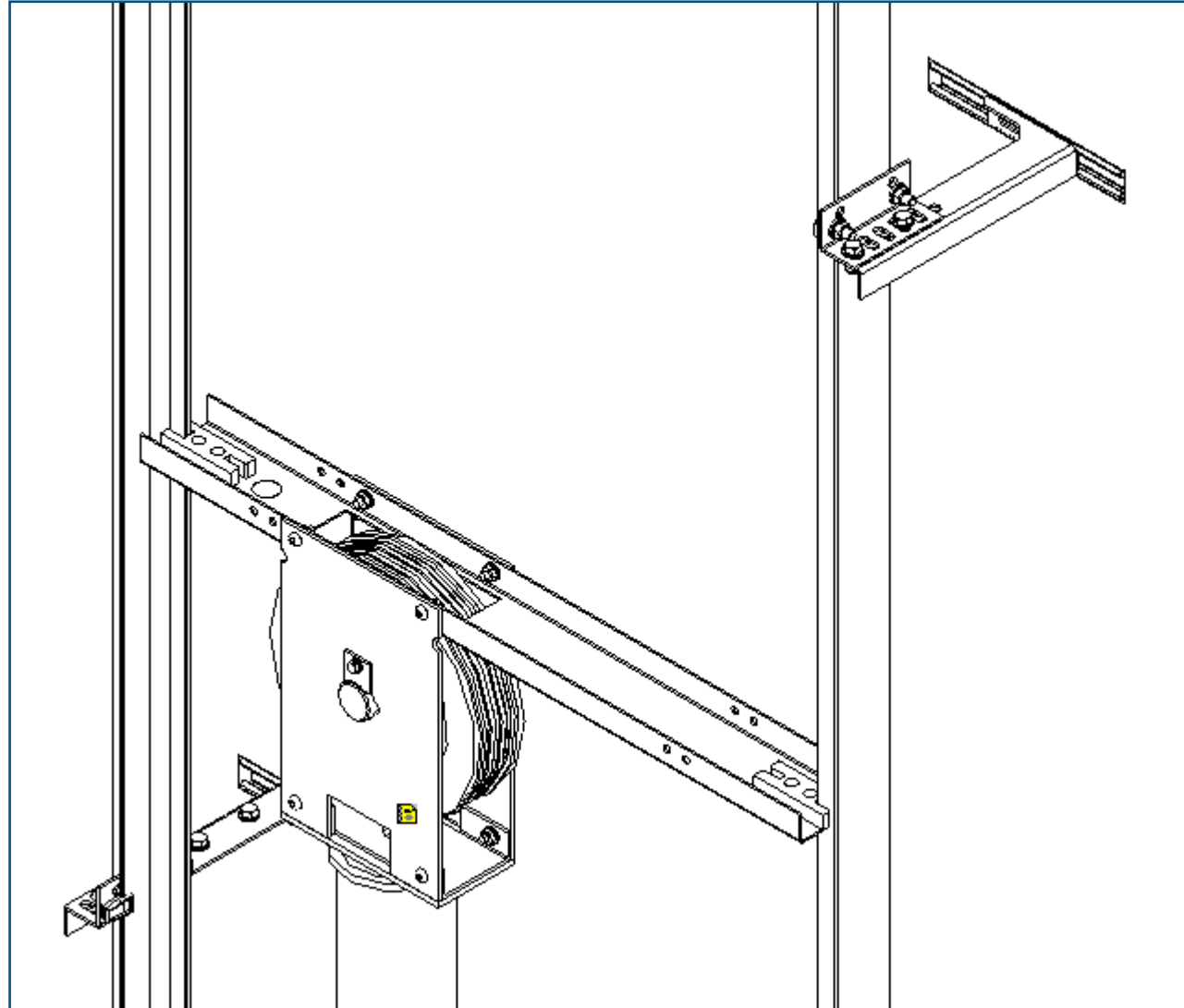
LOW L.O.D



HIGH L.O.D

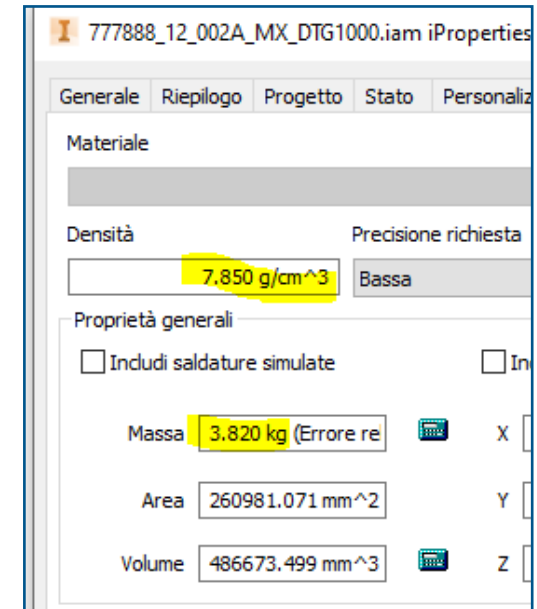
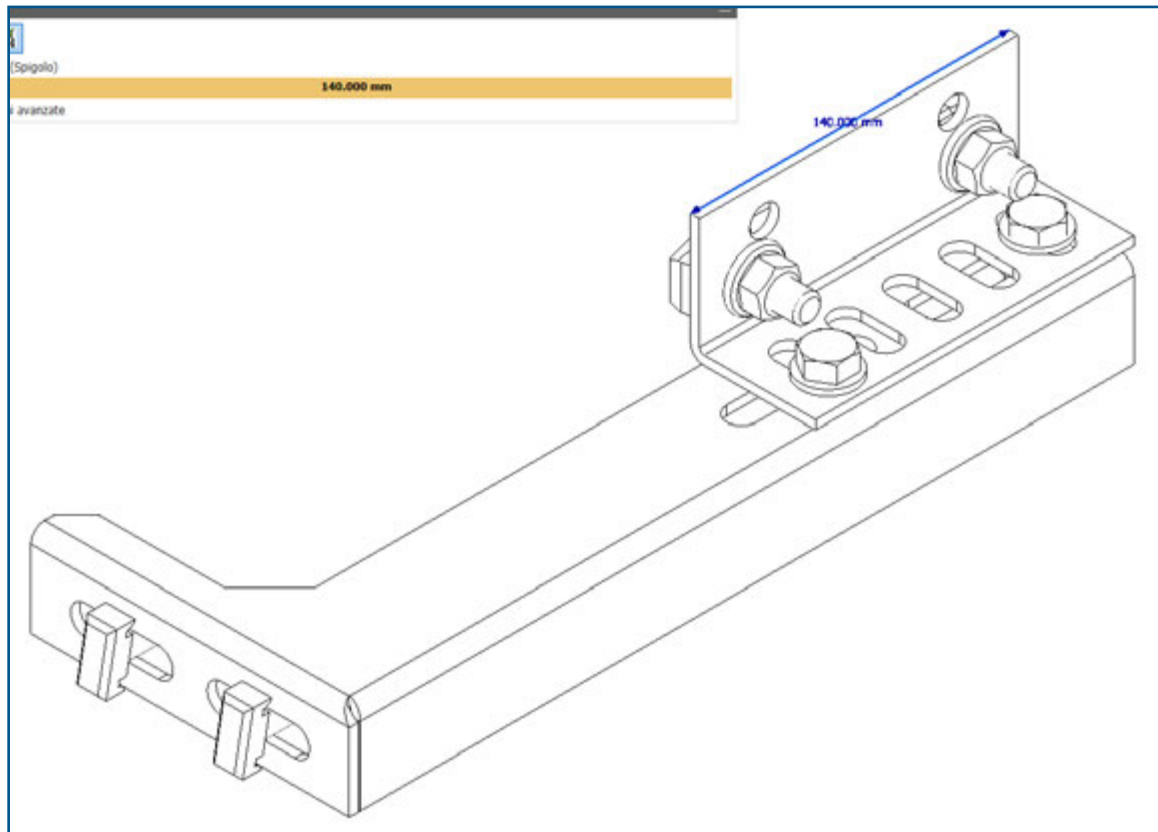
3D Model and different levels of detail (L.O.D.)

HIGH L.O.D



Information such as...

WEIGHT



Information such as...

BIM000_12_003_MX.IPT - iProperties

Generale Riepilogo **Progetto** Stato Personalizzate Salva Fische

Posizione: C:_VaultPro\Dati\provvisorio\BIM000\

Sottotipo file: Lamiera

Numero parte: BIM000_12_003_MX

Numero di magazzino: COST#00003

Descrizione: Controstaffa guide Icaro (3)

Numero revisione: 00

Progetto:

Progettista: ct

Ingegnere:

Autorità:

Centro gestione costi:

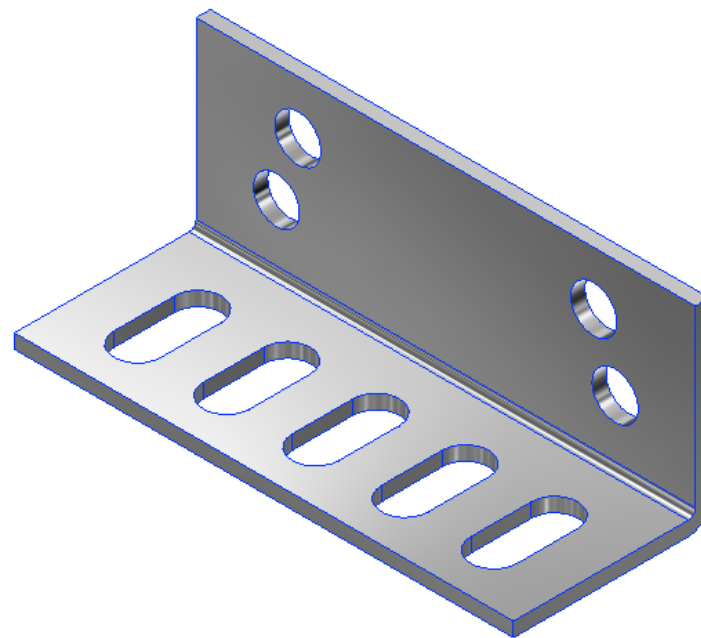
Costo preventivato: 5,00 €

Data creazione: ☒ 29/01/2003

Fornitore:

Collegamento Web:

Chiudi Annulla Applica



STORE COD

COSTS

INFORMATION

For every components (such as the door, the piston, the hydraulic pump, the Motor, etcetera), **it is possible to add various info like:**

- Supplier;
- Type of material;
- Norm reference;
- Etcetera

BUILDING INFORMATION MODELING

Opportunities

1

Enlarged market (Europe / world)

2

Simplified product understanding

3

Immediate availability of information

Risks & difficulties

1

Protection of the SME know-how

2

Different costs and planning time (at least in the initial phase)

3

Staying out of the market

5 STEPS TO A SUCCESSFUL BIM IMPLEMENTATION IN COMPANIES, ORGANISATIONS AND DESIGN STUDIOS

1. Goals definition and check-up of the current capabilities of the company;
2. Analysis of the current business processes;
3. Analysis of the digitalization need of the company;
4. BIM pilot project, involving all the business sectors;
5. Redefinition of roles.

5 STEPS TO A SUCCESSFUL BIM IMPLEMENTATION IN COMPANIES, ORGANISATIONS AND DESIGN STUDIOS

IN PARTICULAR:

4. BIM pilot project, involving all the business sectors

This stage is the core of the whole implementation, where:

- All the classic processes will be redefined;
- Training of the employees will be vital;
- There will be a need to hire new figures (Linked to step 5);
- The develop of a BIM pilot project will be monitored, in order to understand critical points/difficulties encountered along the path.



5 STEPS TO A SUCCESSFUL BIM IMPLEMENTATION IN COMPANIES, ORGANISATIONS AND DESIGN STUDIOS

IN PARTICULAR:

5. Redefinition of roles

The final step regards people who work in the company: some roles will be new, like:

- BIM Manager;
- BIM Coordinator;
- BIM Specialist;
- CDE Manager.



THANK YOU FOR YOUR ATTENTION

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