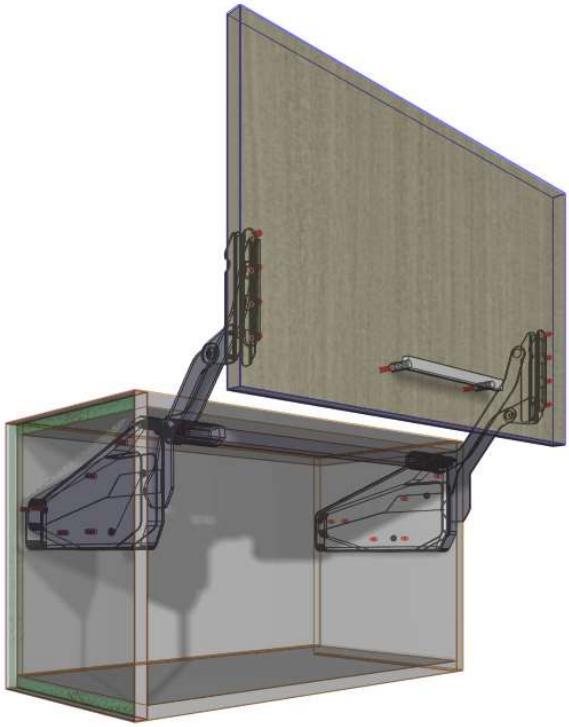
Hafele Free-Up User Guide.



Introduction

Overview

- The 'Hafele Free-Up Package' from Solid Setup Plus adds the Hafele Free-Up door Lift system to Cabinet Vision
- It provides drilling for the Cabinet and Door parts, for CNC output.
- *(You can change the drilling diameters and depths to the tools you want to use.)*
- It also adds 3d graphics for the Mechanisms and brackets etc.
- The Mechanisms and brackets etc are added as a separate parts and materials for reporting purposes.
- All material descriptions contain the Hafele order number after the # symbol.
- UCS calculates weight of Door by using the density of board and handle weight.
- User can adjust density, handle weight or Total weight using attributes.
- The Total weight determines which Lift Mechanism and Arm Assembly to use, automatically.

Included in This Package

User Created Standards

The Following UCSs are provided

- { DOOR } -- Hafele Free-Up Attributes -Adds Hafele Free-Up Attributes to DOR
- { DOOR } -- Hafele Free-Up -Adds Hafele Free-Up to DOR_OPEN
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Library

- CVS Hafele.cvc — Cabinet Vision Catalog of Hafele Library parts

Parts

- HNGDXF — Hinge type part used for Mechanisms
- HNGPLT — Hinge type part used for Mech Covers
- HNGSTAY — Hinge type part used for Arms
- ROD — Assembly type part used for Connecting Rods

Miscellaneous Materials:

Material	Description
FreeUp Arm	FreeUp Arm (hide)
FreeUp Arm Open 320	FreeUp Arm (hide)
FreeUp Arm Open 345	FreeUp Arm (hide)
FreeUp Arm Open 380	FreeUp Arm (hide)
FreeUp Arm Open 430	FreeUp Arm (hide)
FreeUp Brkt	FreeUp Bracket (hide)
FreeUp Crossbar 0324	FreeUp Crossbar 324 #372.33.690
FreeUp Crossbar 0374	FreeUp Crossbar 374 #372.33.691
FreeUp Crossbar 0474	FreeUp Crossbar 474 #372.33.692
FreeUp Crossbar 0674	FreeUp Crossbar 674 #372.33.693
FreeUp Crossbar 0774	FreeUp Crossbar 774 #372.33.694
FreeUp Crossbar 0874	FreeUp Crossbar 874 #372.33.695
FreeUp Crossbar 1074	FreeUp Crossbar 1074 #372.33.696
FreeUp Crossbar 1374	FreeUp Crossbar 1374 #372.33.697
FreeUp Crossbar 1674	FreeUp Crossbar 1674 #372.33.698
FreeUp Kit Gry O1us	FreeUp Kit Grey O1us #372.33.700
FreeUp Kit Gry O2us	FreeUp Kit Grey O2us #372.33.701
FreeUp Kit Gry O3us	FreeUp Kit Grey O3us #372.33.702
FreeUp Kit Gry P1us	FreeUp Kit Grey P1us #372.33.710
FreeUp Kit Gry P2us	FreeUp Kit Grey P2us #372.33.711
FreeUp Kit Gry P3us	FreeUp Kit Grey P3us #372.33.712
FreeUp Kit Gry P4us	FreeUp Kit Grey P4us #372.33.713
FreeUp Kit Gry Q1us	FreeUp Kit Grey Q1us #372.33.720
FreeUp Kit Gry Q2us	FreeUp Kit Grey Q2us #372.33.721
FreeUp Kit Gry Q3us	FreeUp Kit Grey Q3us #372.33.722
FreeUp Kit Gry Q4us	FreeUp Kit Grey Q4us #372.33.723
FreeUp Kit Gry R1us	FreeUp Kit Grey R1us #372.33.730
FreeUp Kit Gry R2us	FreeUp Kit Grey R2us #372.33.731
FreeUp Kit Gry R3us	FreeUp Kit Grey R3us #372.33.732
FreeUp Kit Gry R4us	FreeUp Kit Grey R4us #372.33.733

Material	Description
FreeUp Kit Wte O1us	FreeUp Kit White O1us #372.33.500
FreeUp Kit Wte O2us	FreeUp Kit White O2us #372.33.501
FreeUp Kit Wte O3us	FreeUp Kit White O3us #372.33.502
FreeUp Kit Wte P1us	FreeUp Kit White P1us #372.33.510
FreeUp Kit Wte P2us	FreeUp Kit White P2us #372.33.511
FreeUp Kit Wte P3us	FreeUp Kit White P3us #372.33.512
FreeUp Kit Wte P4us	FreeUp Kit White P4us #372.33.513
FreeUp Kit Wte Q1us	FreeUp Kit White Q1us #372.33.520
FreeUp Kit Wte Q2us	FreeUp Kit White Q2us #372.33.521
FreeUp Kit Wte Q3us	FreeUp Kit White Q3us #372.33.522
FreeUp Kit Wte Q4us	FreeUp Kit White Q4us #372.33.523
FreeUp Kit Wte R1us	FreeUp Kit White R1us #372.33.530
FreeUp Kit Wte R2us	FreeUp Kit White R2us #372.33.531
FreeUp Kit Wte R3us	FreeUp Kit White R3us #372.33.532
FreeUp Kit Wte R4us	FreeUp Kit White R4us #372.33.533
FreeUp MecCov Gry	FreeUp Mech Cover Grey (hide)
FreeUp MecCov Wte	FreeUp Mech Cover White (hide)
FreeUp Mech	FreeUp Mech (hide)

Free-Up Usage

Door Requirements.

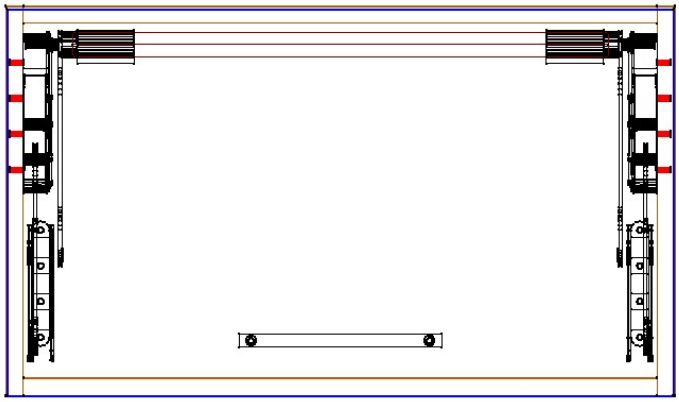
For the Free-Up to appear on a door the following conditions must be met

- Door must be hinged at top.
- Door must have its hinge quantity set to zero.
- Door height **must** be in size range **320-600 High** and door must be **260-1800 Wide**
- The **"Free-Up?"** Attribute will then appear on the Door to switch on Free-Up.
- (You must be in the orthographic or "Smiley" views to click on the door and see the attributes)

Attributes

- If the **"Free-Up?"** attribute is changed to "**True**" the following attributes will appear on the Door, along with the Free-Up Mechanisms and Arms.
- **NOTE**: - If the Door is not within the above size ranges, or is too heavy for any Mechanism the Free-Up parts will **not** be added to the Door.

Free Up ?	True
Free Up Colour	White
Free Up Dor Kg/m3	800
Free Up Dor Kg	2.99
Free Up Dor Pull gm	200
Free Up Dor Total Kg	3.19
Free Up Open?	True
Free Up Pos Lh	16
Free Up Pos Rh	16
Free Up Pos Top	152



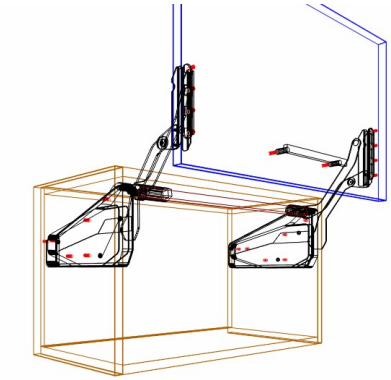
- **Free-Up Dor Kg/m3** This value is the density of the door measured in kilograms per cubic meter and is used to calculate the weight of the door – ***change this to the density of the board you are using if known (If you are using MDF its density varies between 680 and 830 Kg/m3)***
- **Free-Up Dor Kg** -This is the weight of the door as calculated by the **density** value **you** entered multiplied by the door size and thickness. – ***(If you already know the door weight you can change this value rather than using the density calculated weight.)***
- **Free-Up Dor Pull gm** -This value is the weight of the handle in grams and is used to calculate the total weight of the door plus handle – ***(change this to the total weight of the handle(s) you are using.)***
- **Free-Up Dors Total Kg** -This is the total weight of the door and handle added together and is used to select the correct Lift Mechanism ***(If you already know the total door weight plus handle, you can change this value rather than using the density calculated weight.)***

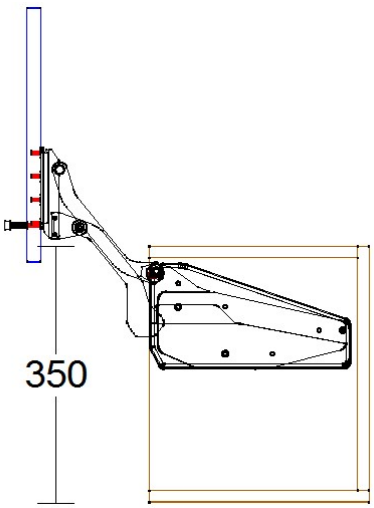
- **Free-Up Colour?** -Changes the Cover Colour **(Grey, White)**
- **Free-Up Open?** -Shows the door in the open position.
- **Free-Up Pos Lh** -Can be used to move the x position of the left Arm.
- **Free-Up Pos Rh** -Can be used to move the x position of the right Arm.
- **Free-Up Pos Top** - **CRITICAL DIMENSION – You must ensure this value is correct or the FREE-UP will NOT WORK!!! So read the following CAREFULLY**
    - **When the top of the door is at the top of the cabinet, this value is the distance from the top of the cabinet to the bottom of the Mech.**
    - **The Mech must be 152mm below the bottom of the top!**

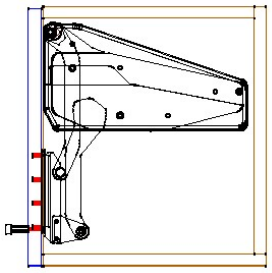
The following table shows which Kit codes are used, for different heights and total door weights:

KH-	Arm strength	Weight Min	Weight Max	CODE WHITE	CODE GREY
320-360	O1us	3	5.7	372.33.500	372.33.700
Int H >= 280	O2us	4.8	9.3	372.33.501	372.33.701
	O3us	8.7	16.5	372.33.502	372.33.702
345-420	P1us	2.4	4.8	372.33.510	372.33.710
	P2us	4.1	8	372.33.511	372.33.711
Int H >= 308	P3us	7.4	14	372.33.512	372.33.712
	P4us	11	19.6	372.33.513	372.33.713
380-500	Q1us	2	3.8	372.33.520	372.33.720
	Q2us	3.4	6.7	372.33.521	372.33.721
Int H >= 343	Q3us	6.3	11.8	372.33.522	372.33.722
	Q4us	9.3	17.4	372.33.523	372.33.723
430-600	R1us	1.6	3.3	372.33.530	372.33.730
	R2us	2.6	5.5	372.33.531	372.33.731
Int H >= 388	R3us	5	9.7	372.33.532	372.33.732
	R4us	7.4	14.6	372.33.533	372.33.733

Some Example Images:







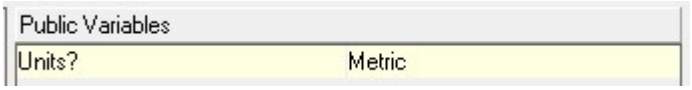
Drilling Setup

UCS Public Variables

- To change these variables go to the Utilities – Edit User Created Standards from the Room Plan or Elevation views

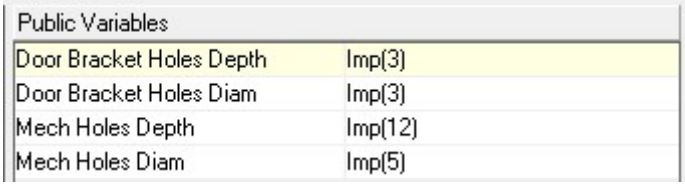


- Then click on the **"{ DOOR } -- Hafele Free-Up Attributes"** UCS. The Public Variables are at the top right of the screen.



- **Units?** If you are using **imperial** units the variable must be set to **Imperial or the door weights will be incorrect.**

- Now click on the **"{ DOOR } -- Hafele Free-Up"** UCS. Here we set the various drilling sizes.



- Edit the **Imp()** values to the diameter and depths you require.
- If you are using imperial sizes simply replace the whole **imp()** with the imperial measurement instead.
- E.g.: **Imp(3)** might become **1/8**

Once you have changed these values to your requirements, close the UCS editor.

Tools Required

- The drill diameters you choose in the UCS User Definable Variables above are all required for this package to work. You must have these tool diameters in your tool catalog and in your machine.

Package Exclusions

There may be some items shown in various images contained in this document which are not included in this Package. Any items such as cabinet screw holes, etc are part of our other packages which are sold separately.

See our website for more detailed information on these packages.