

# Flex Cam Configurator

## Introducing a new configurator tool

### *Benefits*

- Simplified and safer Flex Cam component selection
- No need to use time consuming catalog tables
- Easy to try different component combinations
- Available for download at [www.kaller.com](http://www.kaller.com)

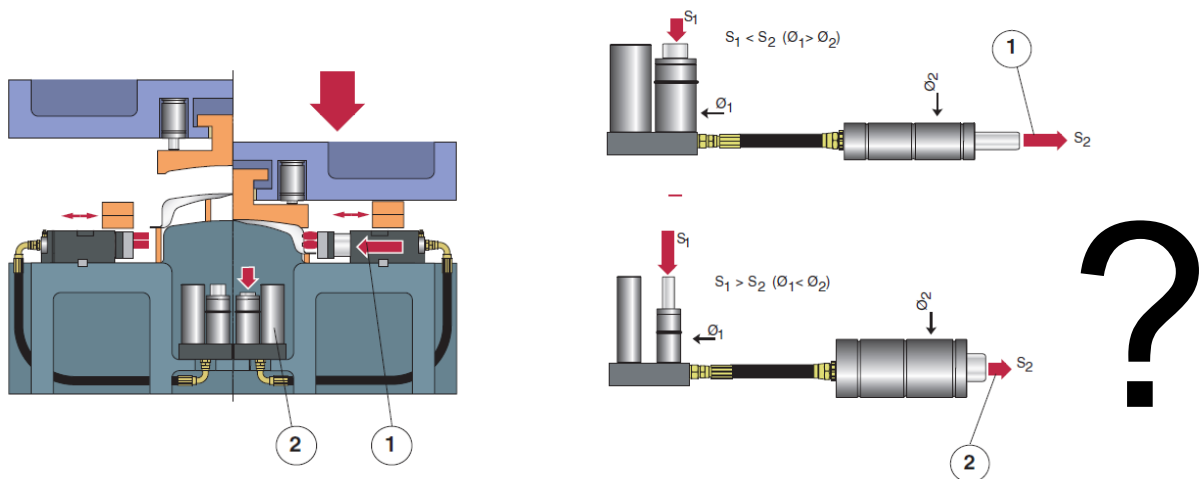
### *Functionality*

- Supports the selection of different Power Units and Hoses
- Possible to select different quantities of Cams and Force Cylinders
- Shows the performance and operating conditions for different combinations
- Shows mounting possibilities and options for each unit
- Possible to make force adjustments optimizing working force according to the application needs
- A selection summary is included
- All values are based on the catalog information

## Step by step instruction

### Check your type of application

Before using the configurator, please check the needed force, stroke and the type of operation, piercing, forming, flanging etc. Download and open the Flex Cam configurator in Excel.



### 1. Select Cam / Force Cylinder

Select Cam or Force Cylinder, version, size, stroke length and the needed quantity. Select also the mounting possibilities and if any options needed.

See more info about the units at the right side of the view.

You will find info about selected units, working force and oil port size as below. (Also the oil volume but that is normally not needed).

#### 1. Select Cam / Force Cylinder

Cam / Force Cylinder	Version	Size (kN)	Stroke Length (mm)	Quantity
<div style="border: 1px solid gray; padding: 2px;">                     Compact Cam (CC)                      Force Cylinder (HCF)                      Flange Cam (CCF)                 </div>	<div style="border: 1px solid gray; padding: 2px;">                     Standard                      With Gas Hose Connection (+)                 </div>	<div style="border: 1px solid gray; padding: 2px;">                     15  <span style="background-color: #007bff; color: white;">40</span>                      60                      90                      150                 </div>	<div style="border: 1px solid gray; padding: 2px;">                     24  <span style="background-color: #007bff; color: white;">49</span>                      99                      124                 </div>	<div style="border: 1px solid gray; padding: 2px;"> <span style="background-color: #007bff; color: white;">1</span>                      2                      3                 </div>
Selected Compact Cam    CC 040-049 Working Force                40 kN Compact Cam Oil Port        G 3/4"		Total Needed Oil Volume        0,15 L		
Mounting Possibilities <div style="border: 1px solid gray; padding: 2px;"> <span style="background-color: #007bff; color: white;">Integrated Base Mount</span> </div>		Options <div style="border: 1px solid gray; padding: 2px;"> <span style="background-color: #007bff; color: white;">No Option</span>                      Proximity Sensor                 </div>		

## 2. Select HCP Power Unit

Write your maximum press velocity for down stroke. This information gives you the Cam / Force cylinder velocity depending on the size of Power Unit and also the ratio between the HCP and Cam / Force Cylinder.

Select the type of Power Unit HCP or HCP-S. Now you will find different recommended Power Unit sizes with different stroke lengths.

Now, please check the available stroke length in the die to actuate the Cam / Force Cylinder. The configurator tells you the Cam / Force Cylinder velocity and also the ratio.

The table below shows the selected Power Unit, the used stroke, the max SPM, the oil port and recommended hose size. (Also the oil volume but that is normally not needed).

### 2. Select HCP Power Unit

Press Velocity  m/s Max 0,8 m/s down stroke

Power Unit Type

Power Unit Type	Recommended Power Units and Operating Conditions
Power Unit (HCP)	HCP-S 015-160 Compact Cam Velocity: 0,34 m/s Ratio: 0,42
Power Unit with separate accumulator (HCP-S)	HCP-S 040-060 Compact Cam Velocity: 0,8 m/s Ratio: 1
	HCP-S 060-060 Compact Cam Velocity: 1,29 m/s Ratio: 1,61

Selected HCP: HCP-S 040-060  
Used Stroke: 59 mm (incl. 10 mm margin)  
Max Frequency (SPM): 60  
Oil Port: G 3/4" Supplied Oil Volume Used Stroke: 0,15 L  
Recommended Hose Size: 3/4" Oil Volume Full Stroke: 0,16 L

### 3. Force Adjustments

The Accumulator gas charge pressure can be changed to max 180 bar or min 50 bar. This will change the Cam / Force Cylinder working force accordingly. Normal gas charge pressure is 150 bar.

The configurator gives also information about Power Unit activating force. The Cam / Force cylinder gas charging pressure can be changed as well but is normally not needed. (Default for Compact Cam is 180 bar and 150 bar. For the Force Cylinder it is 20 bar, max 40 bar).

3. Force Adjustments					
Force Adjustment	Gas Pressure	Compact Cam		Power Unit	
HCP Accumulator gas charge pressure <i>Max 180 bar , Min 50 bar</i>	<input type="text" value="150"/> bar	Working Force	38,5 kN	Activating Force	46,5 kN
Compact Cam gas charge pressure <i>Max 180 bar , Min 125 bar</i>	<input type="text" value="180"/> bar	Return Force	4 kN		

### 4. Selection Summary

The summary shows the selected components and also the needed hose size. The hose length is normally determined by the die designer.

4. Selection Summary					
Description	Order No.	Quantity	Working Force	Used Stroke	Velocity
Compact Cam	CC 040-049	1 pc	38,5 kN	49 mm	0,8 m/s
Power Unit	HCP-S 040-060	1 pc		59 mm	0,8 m/s
Hose Size	3/4"	30 214 55 - xxxx			
Integrated Base Mount	No Order No.				
No Option					

For more assistance, please contact helpdesk at [kaller.com](http://kaller.com)