

# Cutcharts

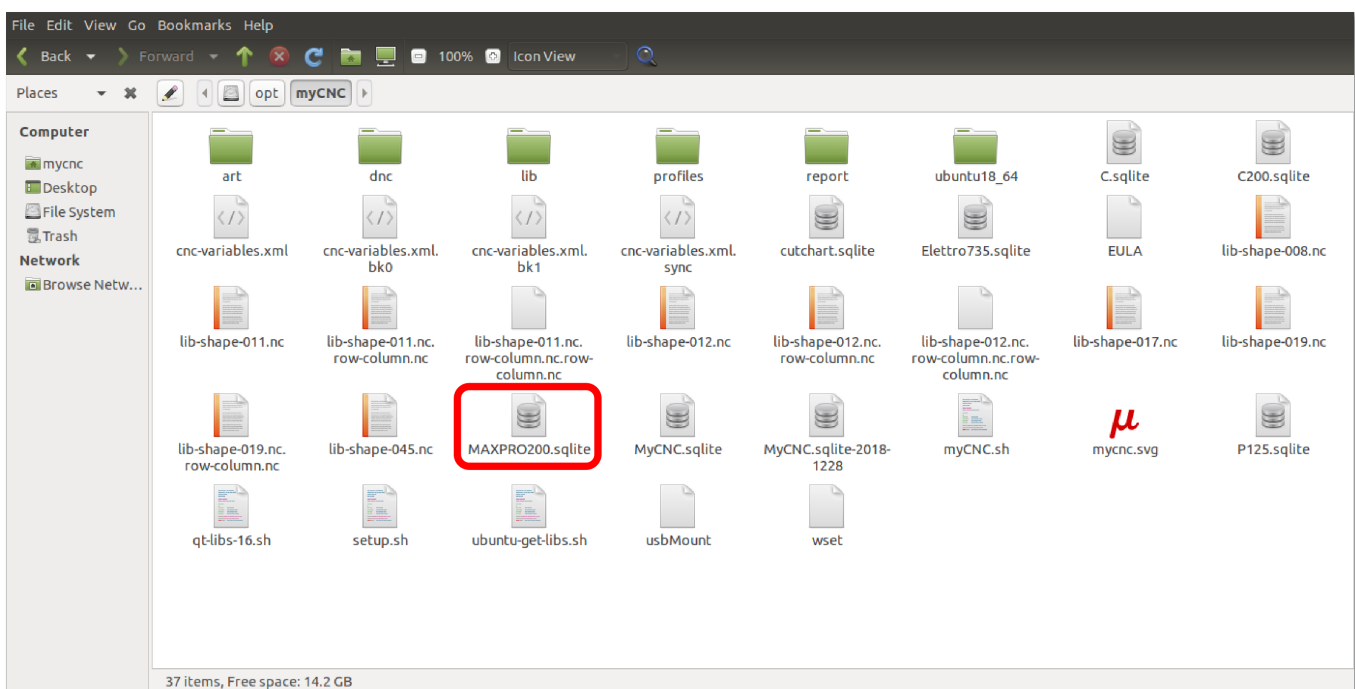
myCNC software supports cutcharts. Cutting parameters such as **Cutting speed**, **Process current**, **Arc voltage reference**, **Ignition Height**, **Pierce height**, **Pierce time**, **Cutting height**, **Kerf compensation** and others can be loaded from the Cutcharts depending on the plasma power source, material type, material thickness and gases/nozzles used.

Cutchart database is stored in the myCNC software as an SQLite database file. The database can be filled manually or imported automatically from an XML or CSV file format.

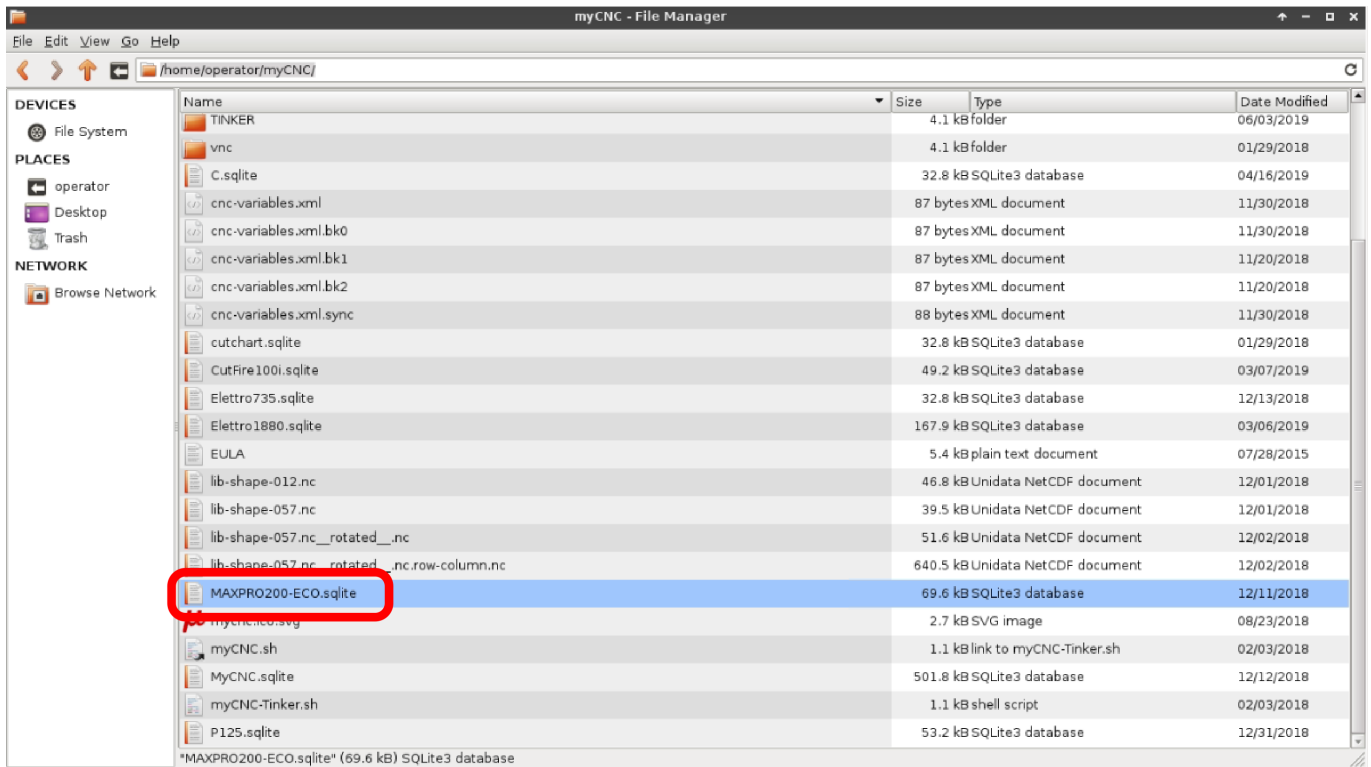
## Importing the cutchart database

In order to import the cutchart database:

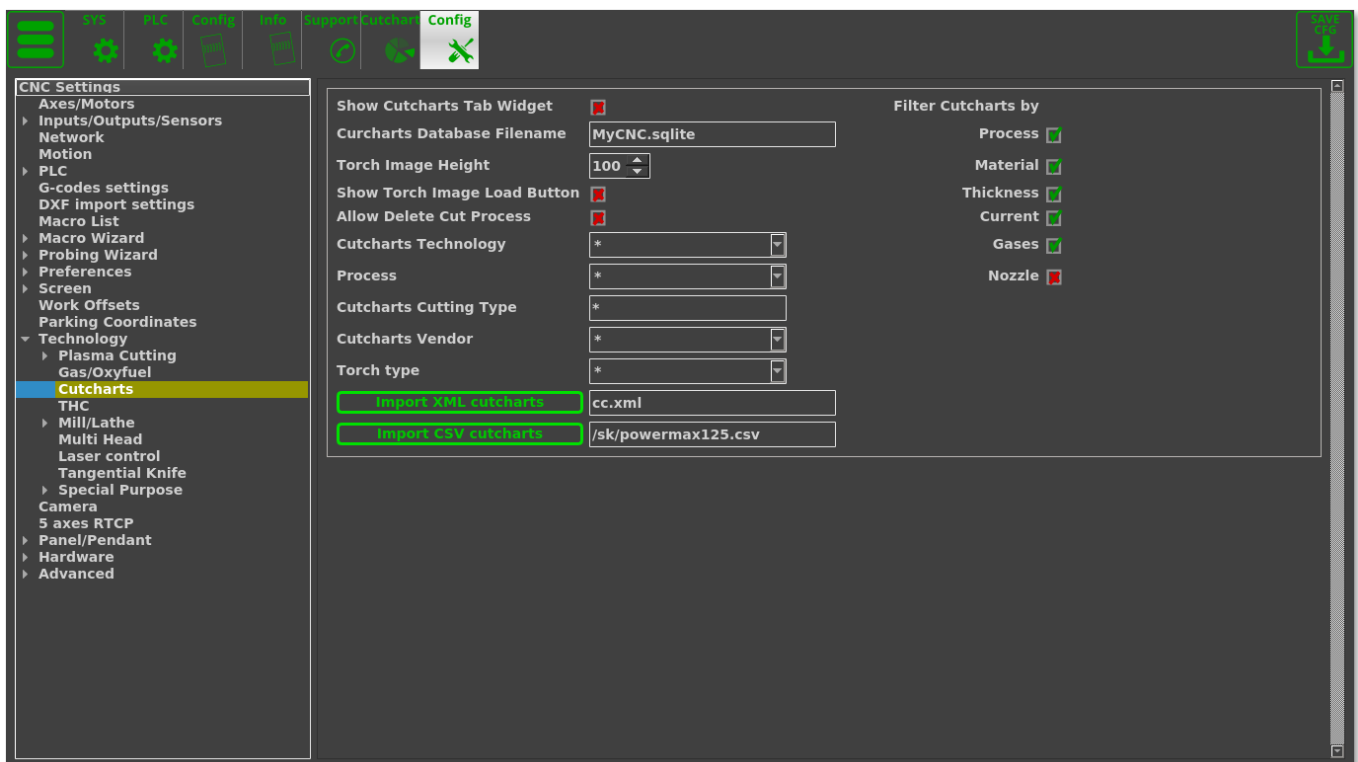
- Go to the myCNC Downloads page, scroll down to **Plasma Cutting Cutcharts** and download the necessary cutchart file (note whether you are downloading an SQLite or a CSV file)
- Move the downloaded file to the folder from which the SQLite files are loaded
  - Ubuntu Mate: /opt/myCNC



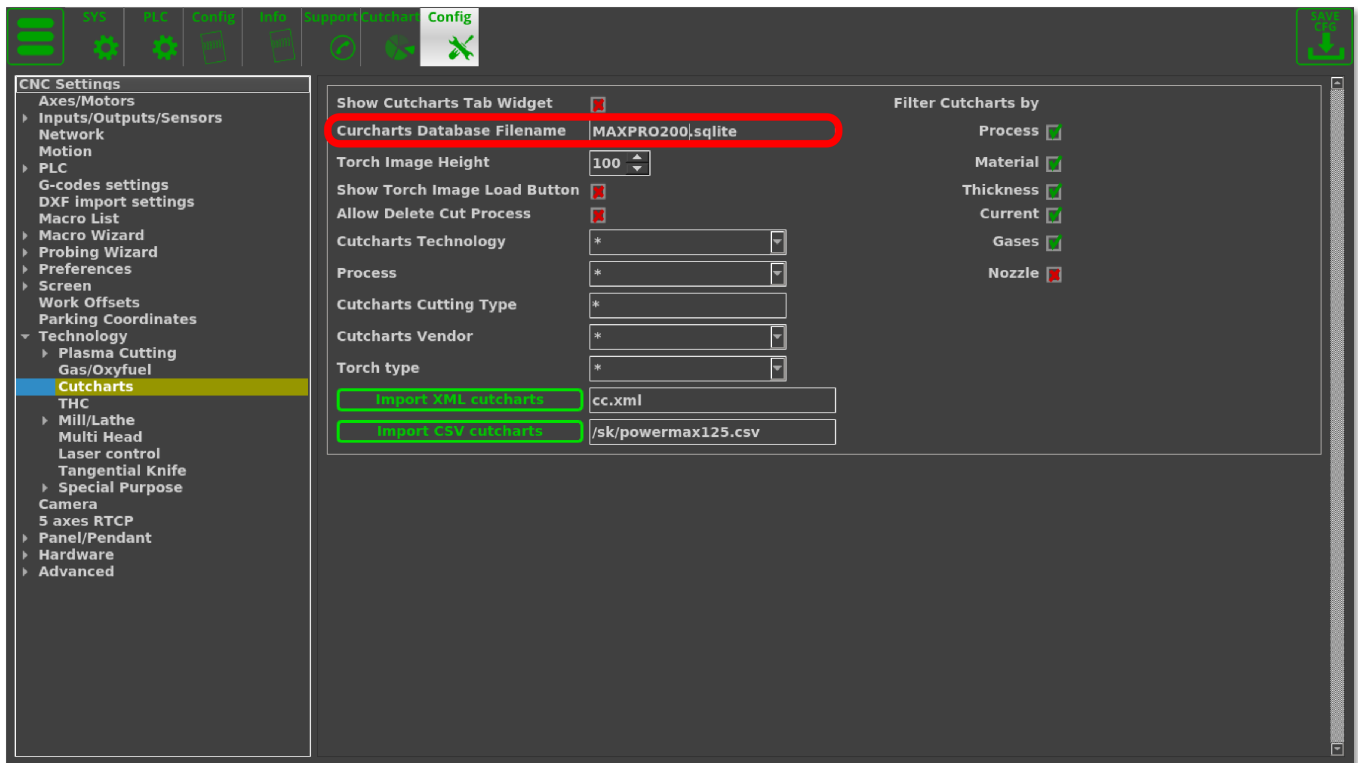
- Tinkerboard computers: /home/USERNAME/myCNC/ (usually /home/operator/myCNC/)



- Go to **Settings > Config > Technology > Cutcharts**



- In the **Cutcharts Database Filename** field, enter the file name that you would like to load into myCNC (for example, MAXPRO200.sqlite).

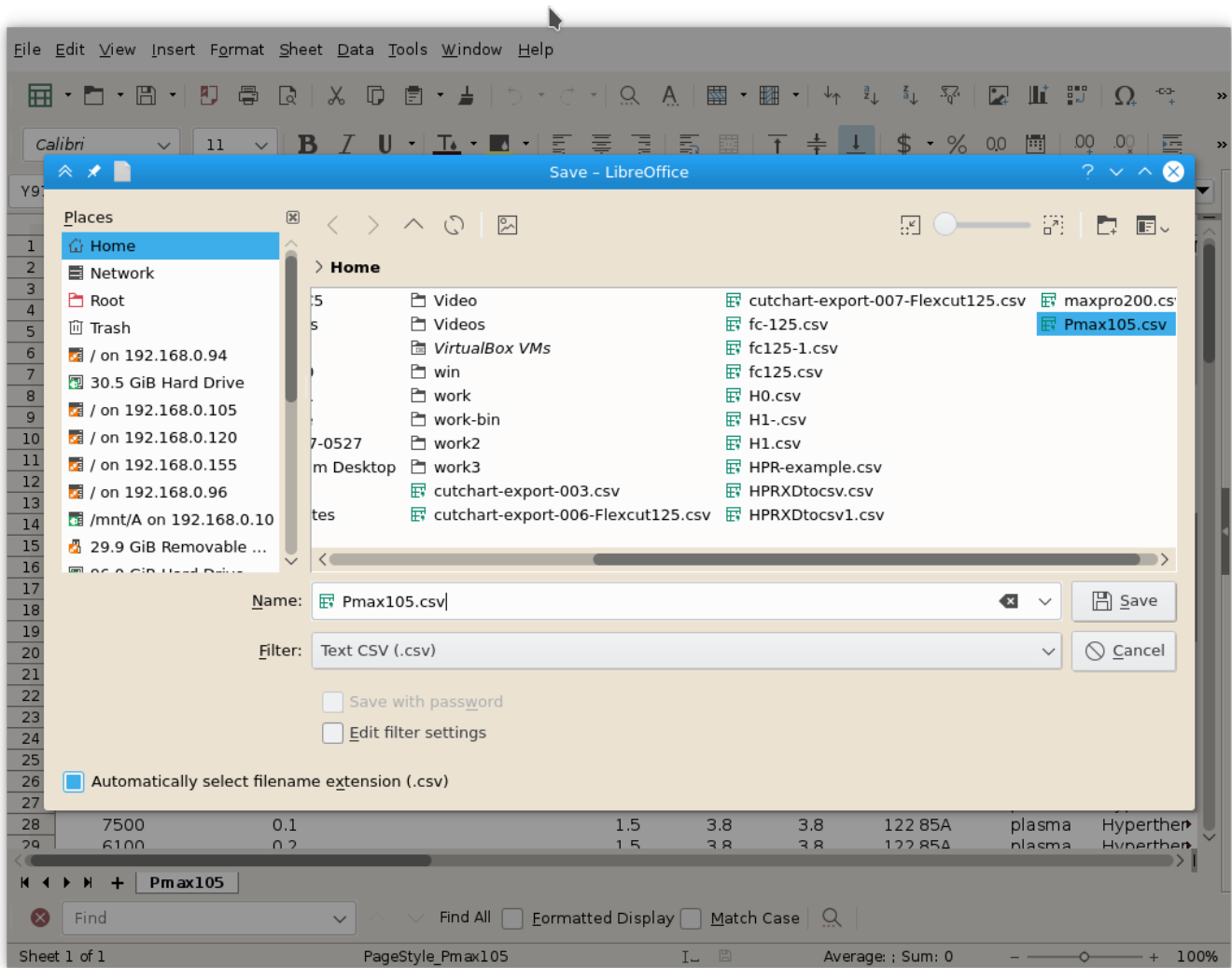


- Save and reload the program. The file should now be loaded into the myCNC system.

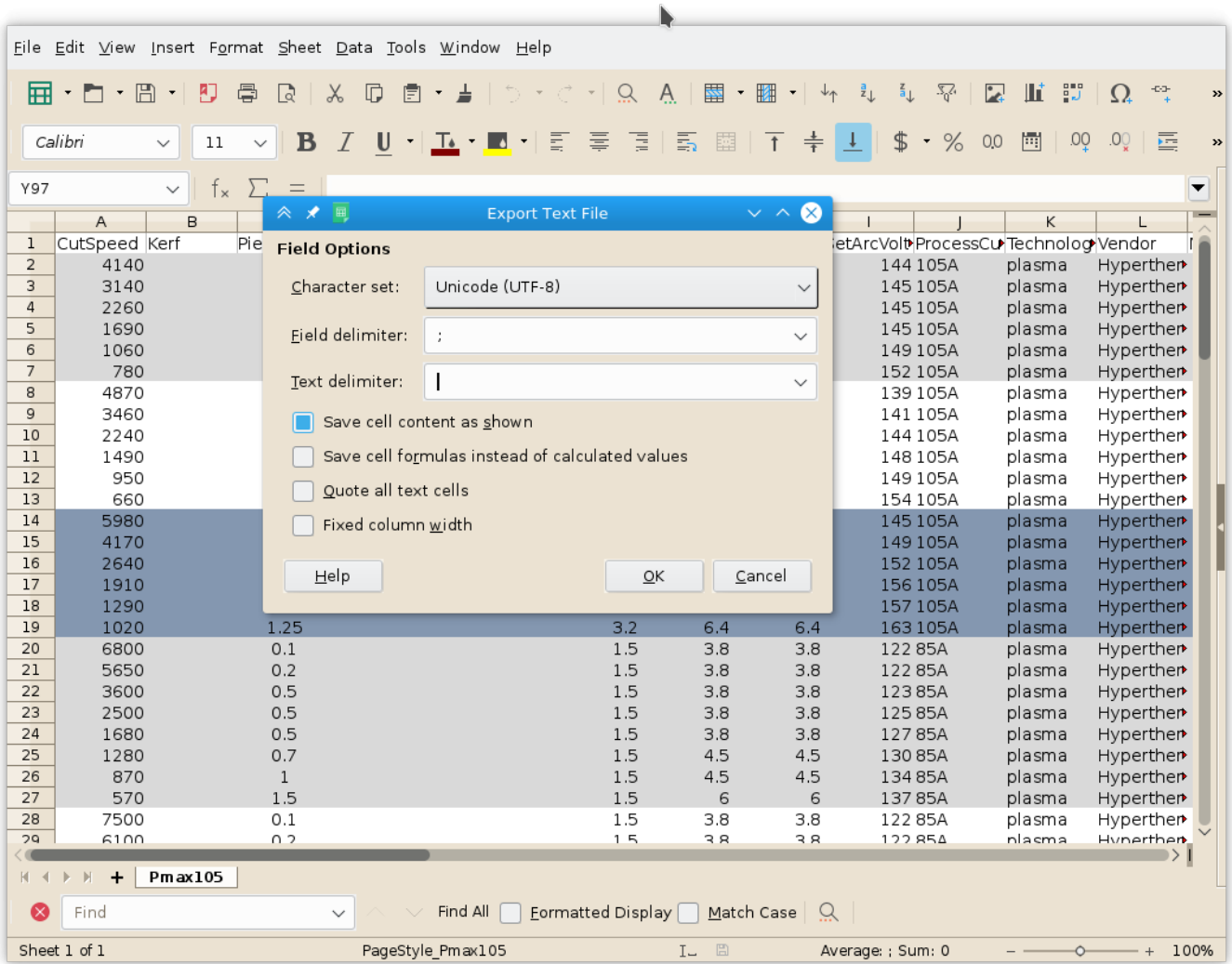
## CSV files

Comma Separated Values (CSV) is a widely used text format. XLS/ODT files can be easily saved as **CSV** files directly from Libre Office Calc or Microsoft Excel.

For example, select **Save as** in Libre Office menu, select **Text CVS** and choose the following in the CSV options:



- “;” as field delimiter
- “” (empty) as text delimiter



These delimiters allow the file to distinguish between different entries that are typed in. The file should now be ready to use.

Parameters List

Parameters List that can be stored in Cutchart is shown in the table below:

Parameter Name	Description
Technology	Cutting technology (Plasma, Oxy-fuel, laser etc)
Vendor	Cutchart vendor
Revision	Cutchart Revision
TorchType	Torch Type
MaterialThickness	Material Thickness
MaterialType	Material Type (Mild Steel, Stainless Stel, Aluminium, Brass)
Process	Process definition (like HPR xd, Fine-Cut etc)
SpecificMaterial	Specific materail (like Bevel cutting)
CollisionDelayTime	—
HoldPierceHeightTime	—
NoMoveAtHolecut	—
Gas_Select1_Type	HPR Automatic gas console Gas Mix Select #1

Parameter Name	Description
Gas_Select2_Type	HPR Automatic gas console Gas Mix Select #2
<b>Consumable part numbers</b>	
ShieldRetainingCap	Shield Retaining Cap part number
Shield	Shield part number
NozzleRetainingCap	Nozzle Retaining Cap part number
Nozzle	Nozzle part number
SwirlRing	Swirl Ring part number
Electrode	Electrode part number
WaterTube	Water Tube part number
<b>Oxy-fuel cutting parameters</b>	
TimeIgnitionValve	Oxyfuel cutting: Ignition time
TimeIgnitionSparkle	Oxyfuel cutting: Sparkle time
TimePreheat	Oxyfuel cutting: Preheat time
TimeSoftOxyStart	Oxyfuel cutting: Cutting Oxygen Soft start time
AGC_Ignition_Fuel	Oxyfuel cutting: Automatic Gas Console - Fuel on Ignition
AGC_Ignition_OxyHeat	Oxyfuel cutting: Automatic Gas Console - Preheat Oxygen on Ignition
AGC_Preheat_Fuel	Oxyfuel cutting: Automatic Gas Console - Fuel on Preheat
AGC_Pierce_Fuel	Oxyfuel cutting: Automatic Gas Console - Fuel on Pierce
AGC_Pierce_OxyHeat	Oxyfuel cutting: Automatic Gas Console - Cutting Oxygen on Ignition
AGC_Pierce_OxyCut	Oxyfuel cutting: Automatic Gas Console - Fuel on Ignition
AGC_Cutting_Fuel	Oxyfuel cutting: Automatic Gas Console - Fuel on Cutting
AGC_Cutting_OxyHeat	Oxyfuel cutting: Automatic Gas Console - Preheat Oxygen on Cutting
AGC_Cutting_OxyCut	Oxyfuel cutting: Automatic Gas Console - Cutting Oxygen on Cutting
AGC_Pilot_Fuel	Oxyfuel cutting: Automatic Gas Console - Fuel on Pilot flame
AGC_Pilot_OxyHeat	Oxyfuel cutting: Automatic Gas Console - Oxygen Fuel on Ignition
<b>Cutting Parameters</b>	
CutSpeed	Cut Speed
Kerf	Kerf Compensation
CreepTime	
CreepSpeed	Creep Speed (see above)
<b>Torch Height Control Parameters</b>	
HC_IgnitionHeight	Ignition Height (Transfer Height)
HC_PierceHeight	Pierce Height
HC_CutHeight	Cut Height
HC_PierceHeightFactor	Hypertherm Parameter, different way to program similar to Pierce Height
HC_PierceDelay	Pierce Delay (Pierce Time)
HC_ArcVoltage	Height control reference voltage (defines cutting height)
HC_ControlDelay	Height control delay - Height control activated after pierce + this delay finished
<b>Plasma Cutting</b>	
ProcessCurrent	Plasma: Process current
SetArcCurrent	Set Arc Current parameter to be sent to PLaSma SOurce (id supported)
CornerReduction	Reduction Process current on corners to reduce overheat and improve corner cut quality
PlasmaShieldGases	Plasma cutting gases for Plasma and Shield channels

Parameter Name	Description
Plasma_Gas	Gas type for Plasma channel
Shield_Gas	Gas type for Shield channel
MixGas1	HPR Gas console MixGas1 Parameter
MixGas2	HPR Gas console MixGas2 Parameter
<b>Plasma Automatic Gas Console</b>	
AGC_PlasmaPrewflow	Plasma: Automatic Gas Console Plasma channel Prewflow gas pressure
AGC_ShieldPrewflow	Plasma: Automatic Gas Console Shield channel Prewflow gas pressure
AGC_PlasmaCutflow	Plasma: Automatic Gas Console Plasma channel Cutflow gas pressure
AGC_ShieldCutflow	Plasma: Automatic Gas Console Shield channel Cutflow gas pressure
<b>Plasma Manual Gas Console</b>	
MGC_PlasmaPrewflow	Plasma: Manual Gas Console Plasma channel Prewflow gas pressure
MGC_ShieldPrewflow	Plasma: Manual Gas Console Shield channel Prewflow gas pressure
MGC_PlasmaCutflow	Plasma: Manual Gas Console Plasma channel Cutflow gas pressure
MGC_ShieldCutflow	Plasma: Manual Gas Console Shield channel Cutflow gas pressure
<b>Additional Parameters</b>	
PS_MarkingDataset	—
PS_TimeSpeedCountourEnd	—
PS_OverrideTimeway	—
PS_WayPlasmaOff	—
PS_WaySpeedCountourEnd	—
PS_PierceReductionDistance	—
PS_PierceReduction	—
PS_CornerCurrentReduction	—

From:  
<http://cnc42.com/> - **myCNC Online Documentation**

Permanent link:  
<http://cnc42.com/mycnc/cutcharts?rev=1562613374>

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