LOTZ
CUTTING

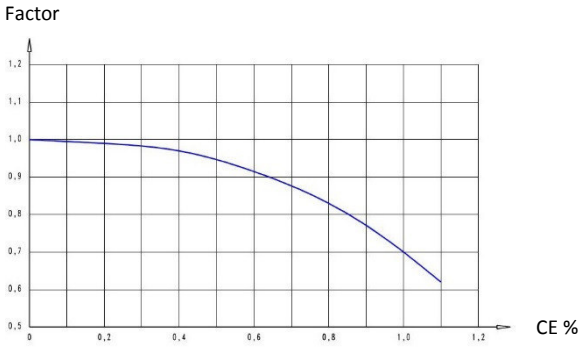
CUTTING NOZZLES

CUTTING NOZZLES

Quality and Efficiency

We use our decades of experience in this field and deliver a product with outstanding characteristics.
The OCL and OCH cutting nozzles convincing among others with excellent surface and cutting edge quality, small cutting kerf, high cutting speed and a long service life.

The information contained in this booklet serve as a guide. Various factors may influence the cutting result. High carbon equivalent (CE) or high silicon may influence the cutting speed or form cracks in the cutting area.



As shown on the diagram to the left, CE influences the cutting performance.
The higher the CE, the more the cutting speed will be affected.
The value from the cutting diagrams have to be multiplied by the factor in accordance to this table.

CE can be calculated as follows:

CE= C + Mn/6 + Cr/5 + Mo/4 + V/4 + Ni/15 + Cu/15

Whether a steel can be cut depends not only on the carbon content, but from the interaction between all of the alloying elements. There are limits for alloy components, therefore please contact us in any doubt.

At a certain value must be cut with iron powder. Cutting with iron powder reduces the cutting speed by approx. by 35%.

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Cutting Nozzle Type:

Our product range is constantly expanding

CUTTING NOZZLE OCL 12

Quality and Efficiency

The cutting nozzle OCL 12 convinces with proven characteristics and increased service life. This nozzle allows a high cutting speed, a small cutting kerf, and makes it the perfect match for various fields of operation for cold and hot product temperature and all common steel grades.

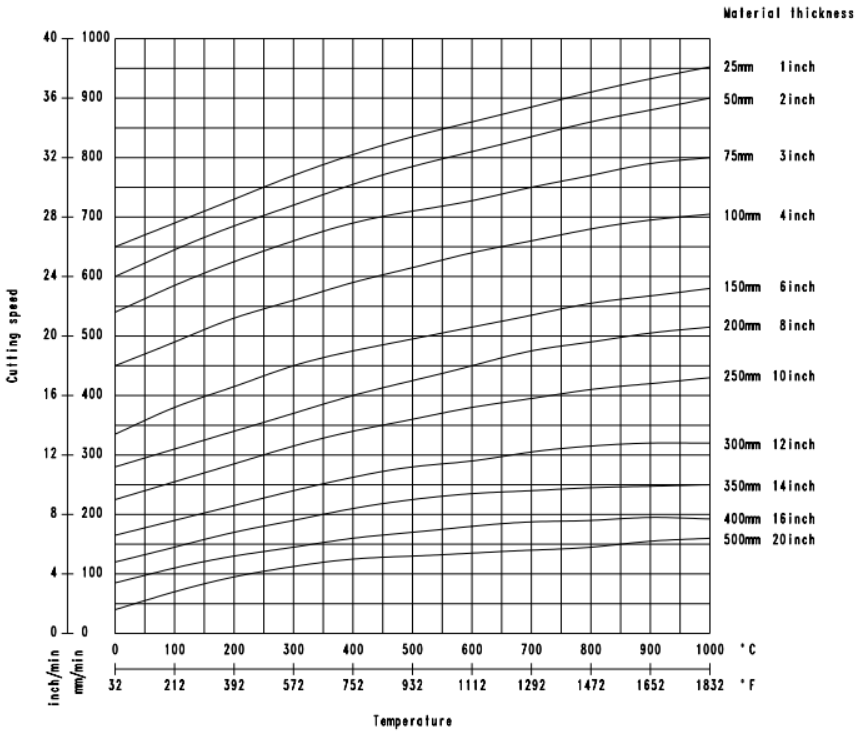
Main Characteristics

Cutting thickness	25 – 500 mm
Oxygen pressure	12 bar
Cutting kerf	5 – 7 mm
Nozzle distance	120 – 165 mm
Noise level (1.5m distance)	100 – 106 dBA
For the use with torch	OCC

Pressure and Consumption	**Heating**						**Cutting**	
	Natural gas		**Propane**		**COG**			
	bar	Nm³/h	bar	Nm³/h	bar	Nm³/h	bar	Nm³/h
Oxygen	2.5	19	3.5	19	3.0	22	12	58
Gas	1.5	21	0.8	9	2.0	31		

The diagram below indicates the cutting speed depending upon material thickness and material temperature with a carbon equivalent of max. 0.3 %. Homogeneous material microstructure, proper pressure adjustment and purity of oxygen of min. 99.5 % is assumed.

If uncertainties prevail for cutting steel with higher alloy composition or cutting with iron powder, please contact us.



CUTTING NOZZLE OCL 26

Quality and Efficiency

The cutting nozzle OCL 26 (OCL 26 P for cutting with iron powder) convinces with proven characteristics and increased service life. This multi-talented nozzle allows a high cutting speed, a small cutting kerf, and makes it the perfect match for various fields of operation for cold and hot product temperature and all common steel grades.

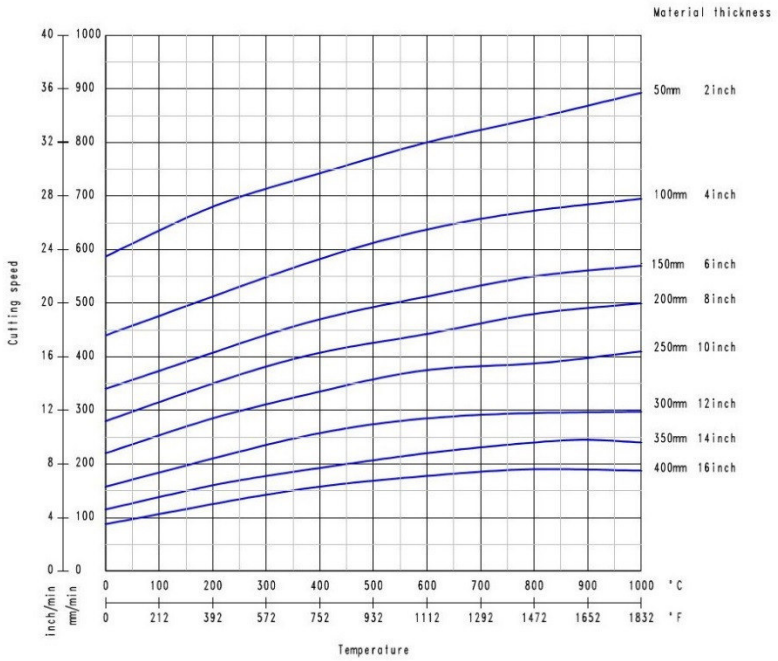
Main Characteristics

Cutting thickness	50 – 400 mm
Oxygen pressure	15 bar
Cutting kerf	5 – 6.5 mm
Nozzle distance	120 – 165 mm
Noise level (1.5m distance)	100 – 106 dBA
For the use with torch	OCT

Pressure and Consumption	**Heating**						**Cutting**	
	Natural gas		**Propane**		**COG**			
	bar	Nm³/h	bar	Nm³/h	bar	Nm³/h	bar	Nm³/h
Oxygen	2.5	19	2.5	19	3.0	22	15	52
Gas	1.5	21	0.8	9	2.0	31		

The diagram below indicates the cutting speed depending upon material thickness and material temperature with a carbon equivalent of max. 0.3 %. Homogeneous material microstructure, proper pressure adjustment and purity of oxygen of min. 99.5 % is assumed.

If uncertainties prevail for cutting steel with higher alloy composition or cutting with iron powder, please contact us.



CUTTING NOZZLE OCL 36

Quality and Efficiency

The cutting nozzle OCL 36 (OCL 36 P for cutting with iron powder) convinces with proven characteristics and increased service life. This multi-talented nozzle allows a high cutting speed, a small cutting kerf, and makes it the perfect match for various fields of operation for cold and hot product temperature and all common steel grades.

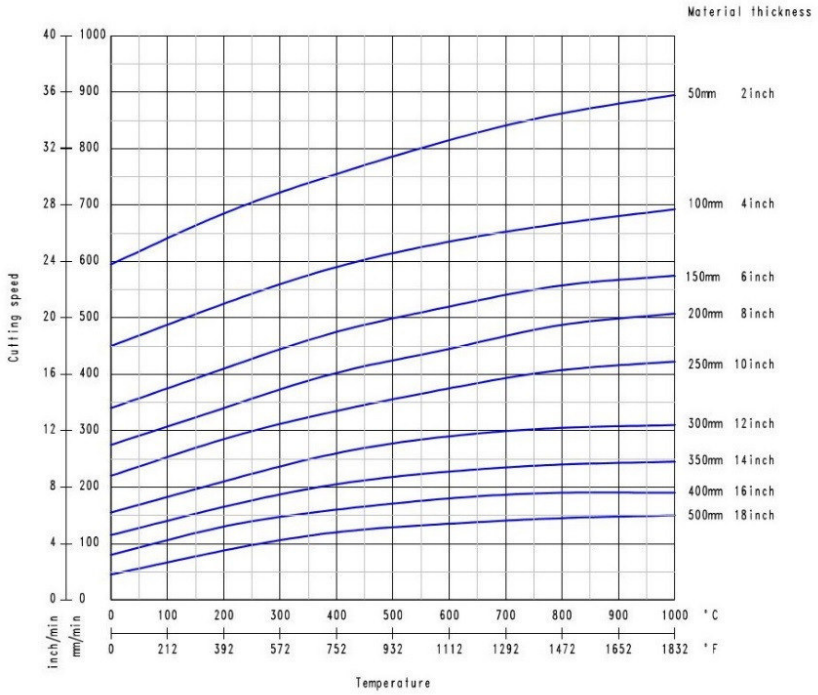
Main Characteristics

Cutting thickness	50 – 500 mm
Oxygen pressure	10 bar
Cutting kerf	4.5 – 6.5 mm
Nozzle distance	120 – 165 mm
Noise level (1.5m distance)	100 – 106 dBA
For the use with torch	OCT

Pressure and Consumption	**Heating**						**Cutting**	
	Natural gas		**Propane**		**COG**			
	bar	Nm³/h	bar	Nm³/h	bar	Nm³/h	bar	Nm³/h
Oxygen	2.5	19	2.5	19	3.0	22	10	58
Gas	1.5	21	0.8	9	2.0	31		

The diagram below indicates the cutting speed depending upon material thickness and material temperature with a carbon equivalent of max. 0.3 %. Homogeneous material microstructure, proper pressure adjustment and purity of oxygen of min. 99.5 % is assumed.

If uncertainties prevail for cutting steel with higher alloy composition or cutting with iron powder, please contact us.



CUTTING NOZZLE OCL 36 P

Quality and Efficiency

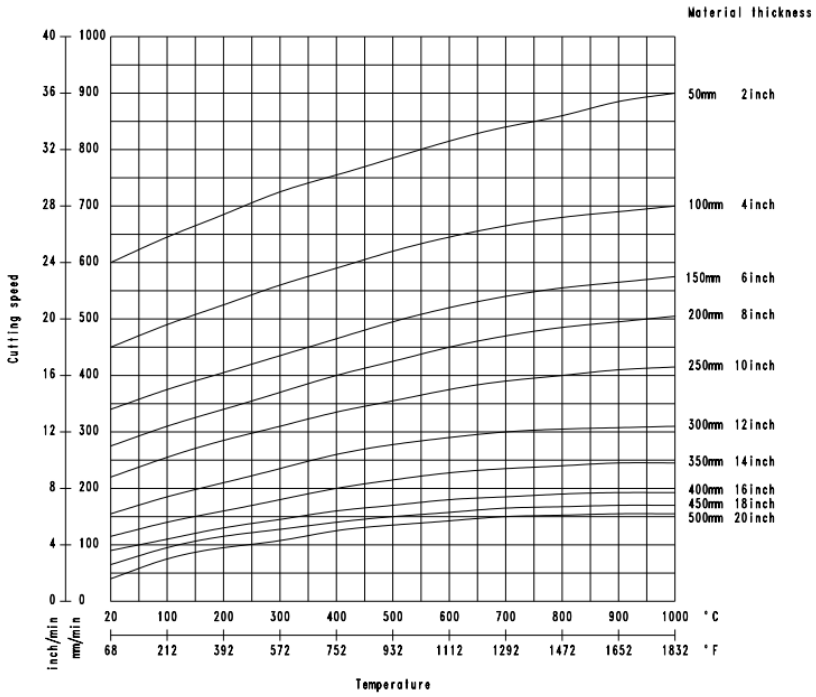
The cutting nozzle OCL 36 P, for cutting with iron powder of stainless steel, convinces with proven characteristics and increased service life. This multi-talented nozzle allows a high cutting speed, a small cutting kerf, and makes it the perfect match for various fields of operation for cold and hot products with high alloying elements.

Main Characteristics

Cutting thickness	50 – 500 mm
Oxygen pressure	10 bar
Cutting kerf	9 – 11 mm
Nozzle distance	80 – 120 mm
Noise level (1.5m distance)	100 – 106 dBA
For the use with torch	OCT

Pressure and Consumption	**Heating**						**Cutting**	
	Natural gas		**Propane**		**COG**			
	bar	Nm³/h	bar	Nm³/h	bar	Nm³/h	bar	Nm³/h
Oxygen	1.8	14	1.8	14	2.3	17	10	58
Gas	1.1	20	0.5	8	1.4	25		

The diagram below indicates the cutting speed depending upon material thickness and material temperature. Cutting stainless steel with high alloying elements reduces the cutting speed. Therefore the cutting speed must be reduced by a factor of 0.65 I general. Stainless steel with higher content of nickel or chrome or others such as silicone steel, must be looked at specifically.



CUTTING NOZZLE OCL 40

Quality and Efficiency

The cutting nozzle OCL 40 convinces with proven characteristics and increased service life. This nozzle allows a high cutting speed, a small cutting kerf, and is especially suitable for thick material cutting.

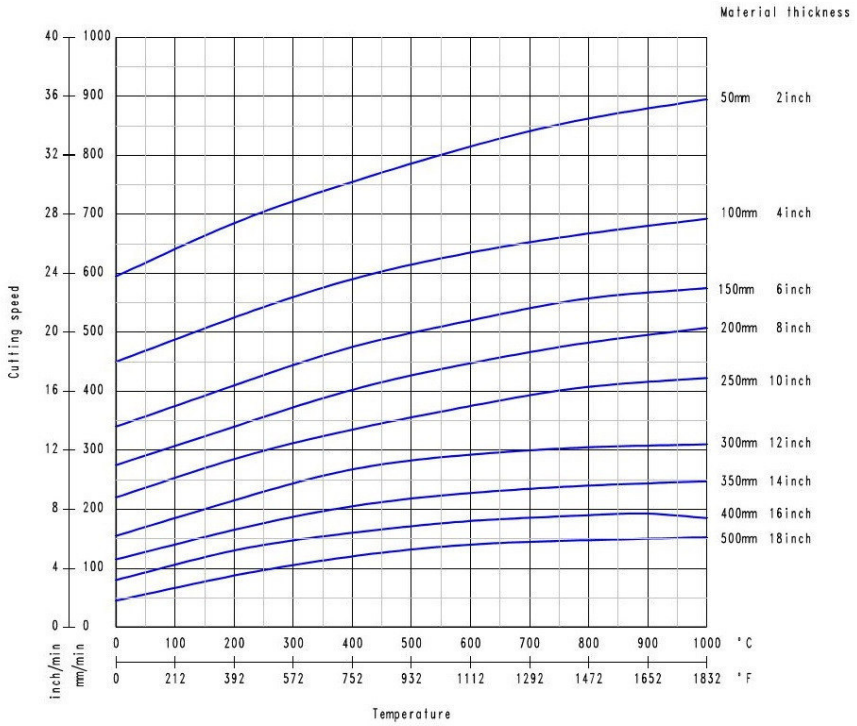
Main Characteristics

Cutting thickness	50 – 500 mm
Oxygen pressure	9 bar
Cutting kerf	8.5 - 9.5 mm
Nozzle distance	120 – 165 mm
Noise level (1.5m distance)	100 – 106 dBA
For the use with torch	OCT, SBK

Pressure and Consumption	**Heating**						**Cutting**	
	Natural gas		**Propane**		**COG**			
	bar	Nm³/h	bar	Nm³/h	bar	Nm³/h	bar	Nm³/h
Oxygen	2.5	19	2.5	19	3.0	22	9	64
Gas	1.5	21	0.8	9	2.0	31		

The diagram below indicates the cutting speed depending upon material thickness and material temperature with a carbon equivalent of max. 0.3 %. Homogeneous material microstructure, proper pressure adjustment and purity of oxygen of min. 99.5 % is assumed.

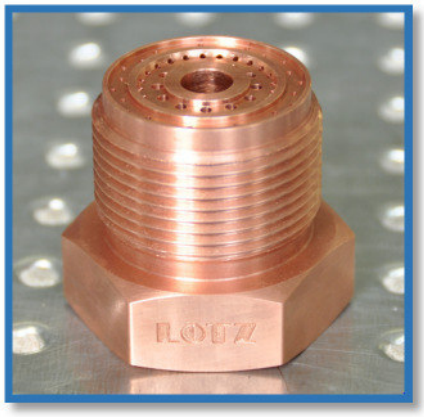
If uncertainties prevail for cutting steel with higher alloy composition or cutting with iron powder, please contact us.



CUTTING NOZZLE OCL 51

Quality and Efficiency

The cutting nozzle OCL 51 convinces with proven characteristics and increased service life. This special designed model allows high speed cutting of extra-large products but with a standard cutting torch. Especially where it depends on the speed (in-line) and high quality cutting surface, this nozzle has been approved.

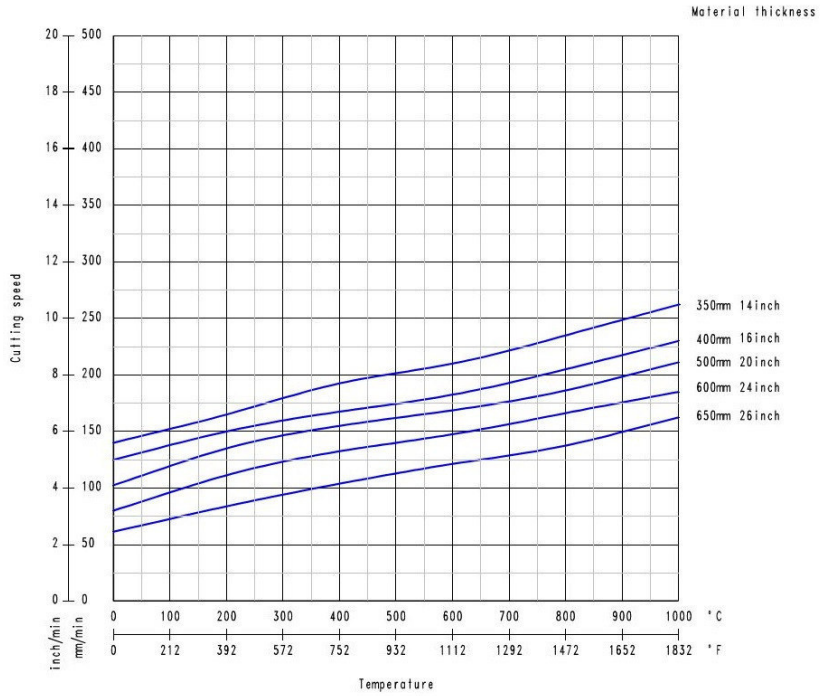


Main Characteristics	
Cutting thickness	350 – 650 mm
Oxygen pressure	8 bar
Cutting kerf	up to 12 mm
Nozzle distance	120 – 165 mm
Noise level (1.5m distance)	100 – 106 dBA
For the use with torch	OCT

Pressure and Consumption	**Heating**						**Cutting**	
	Natural gas		**Propane**		**COG**			
	bar	Nm³/h	bar	Nm³/h	bar	Nm³/h	bar	Nm³/h
Oxygen	1.7	12	1.7	12	1.9	17	8	84
Gas	1.4	25	0.7	10	1.5	30		

The diagram below indicates the cutting speed depending upon material thickness and material temperature with a carbon equivalent of max. 0.3 %. Homogeneous material microstructure, proper pressure adjustment and purity of oxygen of min. 99.5 % is assumed.

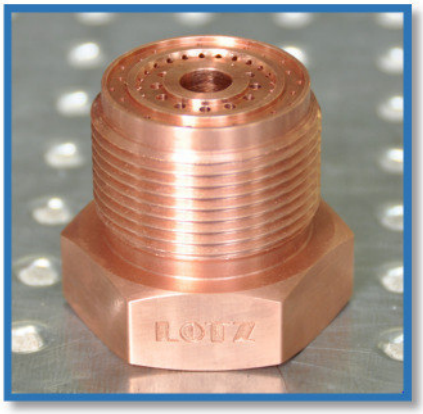
If uncertainties prevail for cutting steel with higher alloy composition or cutting with iron powder, please contact us.



CUTTING NOZZLE OCL 61

Quality and Efficiency

The cutting nozzle OCL 61 convinces with proven characteristics and increased service life. This special designed model allows high speed cutting of extra-large products (blooms). Especially where it depends on the speed (in-line) and high quality cutting surface, this nozzle has been approved.

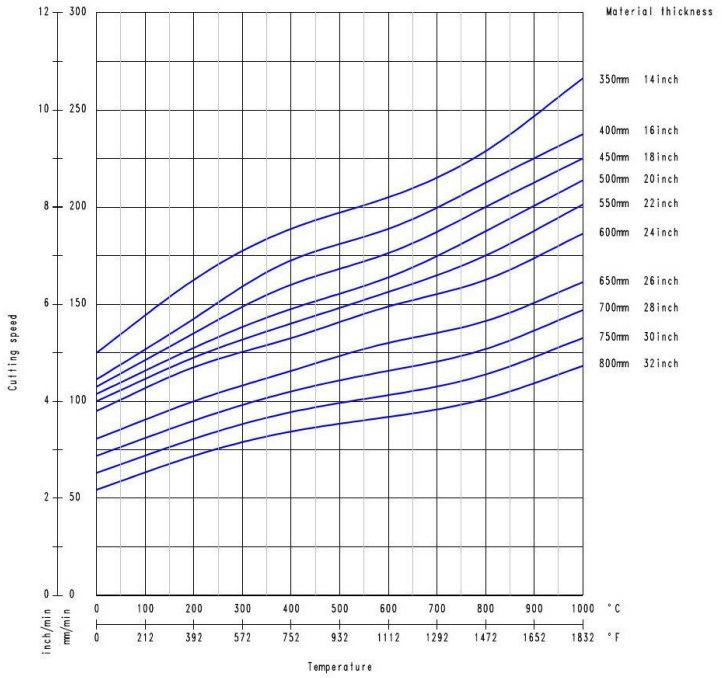


Main Characteristics	
Cutting thickness	350 – 800 mm
Oxygen pressure	8 bar
Cutting kerf	up to 19 mm
Nozzle distance	120 – 165 mm
Noise level (1.5m distance)	100 – 106 dBA
For the use with torch	OCC

Pressure and Consumption	**Heating**						**Cutting**	
	Natural gas		**Propane**		**COG**			
	bar	Nm³/h	bar	Nm³/h	bar	Nm³/h	bar	Nm³/h
Oxygen	1.7	12	1.7	12	1.9	17	8	100
Gas	1.4	25	0.7	10	1.5	30		

The diagram below indicates the cutting speed depending upon material thickness and material temperature with a carbon equivalent of max. 0.3 %. Homogeneous material microstructure, proper pressure adjustment and purity of oxygen of min. 99.5 % is assumed.

If uncertainties prevail for cutting steel with higher alloy composition or cutting with iron powder, please contact us.



CUTTING NOZZLE OCH 32

Quality and Efficiency

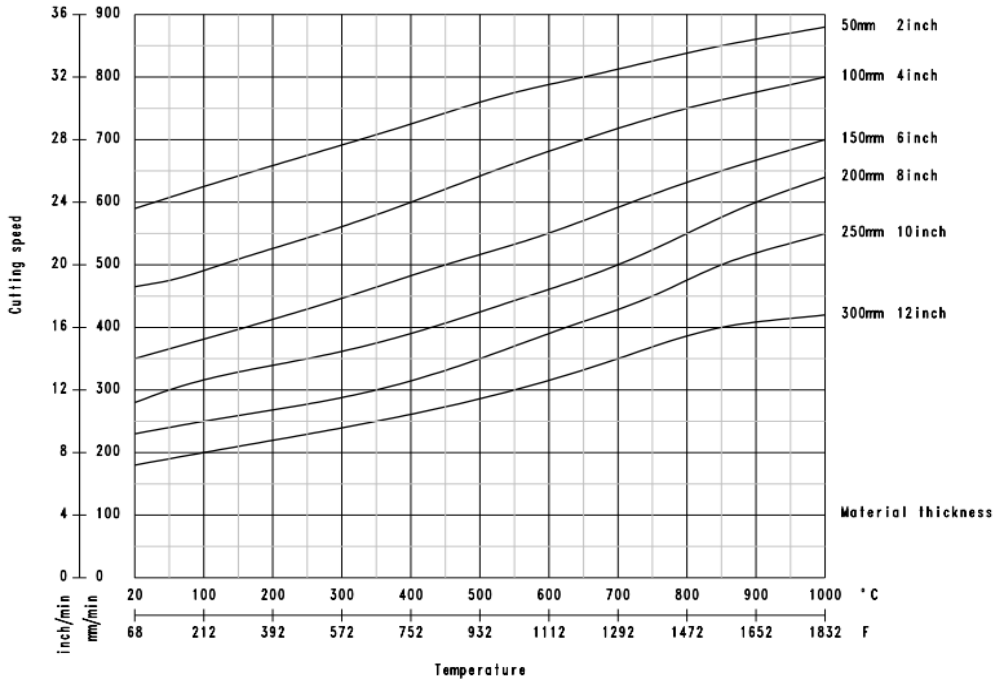
The cutting nozzle OCH 32 convinces with proven characteristics. Increased cutting speed (20% faster than other common nozzle types), economical performance (up to 35% lower heating gas and up to 22% lower oxygen consumption) and increased service life due to its design. This external mixing nozzle allows a high cutting speed, a small cutting kerf, and makes it the perfect match for various fields of operation. The outstanding quality and the properties combined, makes it safe and operator- and maintenance friendly.

Main Characteristics

Cutting thickness	50 – 250 mm
Oxygen pressure	8- 12 bar
Cutting kerf	5 – 6.5 mm
Nozzle distance	120 – 165 mm
Noise level (3m distance)	100 – 104 dBA
For the use with torch	OCT

Pressure and Consumption	**Heating**						**Cutting**	
	Natural gas		**Propane**		**COG**			
	bar	Nm³/h	bar	Nm³/h	bar	Nm³/h	bar	Nm³/h
Oxygen	2.5	14	2.5	22	3.0	25	12	53
Gas	1.5	17	0.8	7.5	2.0	23		

The diagram below indicates the cutting speed depending upon material thickness and material temperature with a carbon equivalent of max. 0.3 %. Homogeneous material microstructure, proper pressure adjustment and purity of oxygen of min. 99.5 % is assumed.



CUTTING NOZZLE OCH 35

Quality and Efficiency

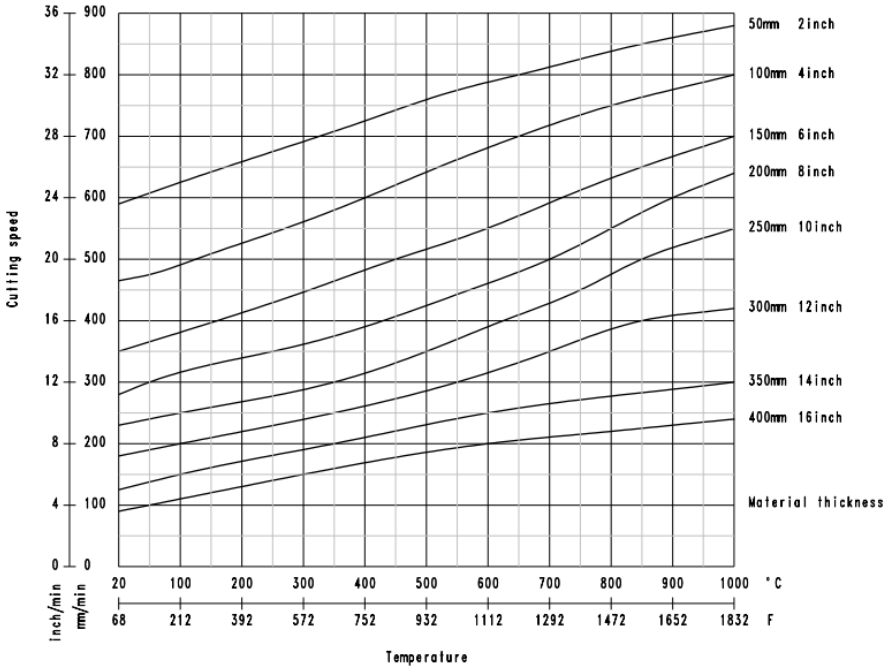
The cutting nozzle OCH 35 convinces with proven characteristics. Increased cutting speed (20% faster than other common nozzle types), economical performance (up to 35% lower heating gas and up to 22% lower oxygen consumption) and increased service life due to its design. This external mixing nozzle allows a high cutting speed, a small cutting kerf, and makes it the perfect match for various fields of operation. The outstanding quality and the properties combined, makes it safe and operator- and maintenance friendly.

Main Characteristics

Cutting thickness	50 – 350 mm
Oxygen pressure	8- 10 bar
Cutting kerf	5 – 7 mm
Nozzle distance	120 – 165 mm
Noise level (3m distance)	100 – 104 dBA
For the use with torch	OCT

Pressure and Consumption	**Heating**						**Cutting**	
	Natural gas		**Propane**		**COG**			
	bar	Nm³/h	bar	Nm³/h	bar	Nm³/h	bar	Nm³/h
Oxygen	2.5	14	2.5	22	3.0	25	10	53
Gas	1.5	17	0.8	7.5	2.0	23		

The diagram below indicates the cutting speed depending upon material thickness and material temperature with a carbon equivalent of max. 0.3 %. Homogeneous material microstructure, proper pressure adjustment and purity of oxygen of min. 99.5 % is assumed.



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