

Performance table flame cutting ZHD Methane (natural gas) - Heavy-duty nozzles ZIN443 9/92

CUTTING
WELDING
SINCE 1898



Material-thickness mm	Cutting nozzle ZHD M	Heating nozzle ZHD M*	Pressures (bar)			Cutting speed mm / min	Nozzle distance mm	Kerf mm	Consumption ltrs / h																							
			Methane	Heating oxygen	Cutting oxygen				Methane	Heating oxygen	Cutting oxygen																					
3	3 - 6	3 - 100	0.1	1.0	1.0	730	3 - 5	0.9	800	870	500																					
5					1.5	700																										
6					2.5	680																										
6	6 - 10				5.0	670																										
8					6.0	650																										
10					7.0	610																										
10	10 - 20		0.2	2.0	7.0	600	4 - 8	1.8	900	1300	3200																					
15					7.5	530																										
20					8.5	470																										
20	20 - 30				7.5	490																										
25					8.5	460																										
30					9.0	410																										
30	30 - 45	0.2	2.0	8.0	420	5 - 10	2.3	900	1300	4900																						
35				8.5	400																											
40				8.5	380																											
45				9.0	360																											
45	45 - 60			0.2	2.0						8.0	360	5 - 10	2.4	900	1300	5300															
50											8.5	340																				
55											8.5	330																				
60											9.0	310																				
60	60 - 80										0.2	2.0						8.0	310	5 - 10	2.5	1100	1500	6250								
70																		8.5	300													
80																		9.0	280													
80	80 - 100																	0.2	2.0						8.0	280	5 - 10	2.7	1100	1500	10000	
90		8.5	260																													
100		9.0	240																													
100	P a. Y a. M	A a. P a. M 100 - 300	0.5			3.0	8.5	230	8 - 12	4.0															1600	2250						14000
120							9.0	210																								
140				9.0	190																											
160				9.5	180																											
160	160 - 230			A a. P a. M 100 - 300	0.5	3.5	6.5	170	10 - 15	5.0			1600	2250	19000																	
180							7.0	160																								
200							7.5	150																								
230							8.5	140																								
230	230 - 300					A a. P a. M 100 - 300	0.5	4.0	6.5	130	10 - 15	6.0	1600	2250	27000																	
250									7.0	120																						
280									7.5	110																						
300									8.5	110																						

The indicated values are approximate values and refer only to unalloyed steel up to 0.3 % C and if using oxygen with a purity of 99.5 % minimum.

The indicated cutting speeds refer to straight cuts with a rust-free surface. Cutting areas of a quality class I according to DIN 2310 will be obtained.

The indicated cutting speeds have to be reduced: For shaping cuts with small radii: by approx. 10%, for angular cuts of 30°: by approx. 25%, for angular cuts of 45°: by approx. 45%.

Nozzle size and the appropriate adjusting values have to correspond to the effective cutting thickness.

The indicated pressures are overpressures in bar, each measured on the torch entry. In case of higher-powered machines, pressure drops in the hose pipes have to be taken into account.

*In case of flame cutting machines supplied by the public network, and thus having normally a pressure inferior to 800mm water column (0,08 bar), we recommend to use heating nozzles with an additional heating circuit.

In case of machines with several torches and central gas supply, piercing unit. etc., we recommend to use a fuel-gas-compressor pump (pressure intensifier).