



CONDIZIONI DI UTILIZZO / Using Recommendations

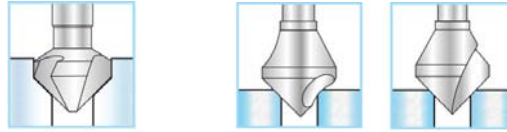
Maggiormente Raccomandato
most suggested

Raccomandato
suggested

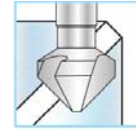
Vc = velocità / speed = m/min.
Vf = avanzamento / feed = mm/min.

$$\frac{Vc \times 1000}{\pi \times \varnothing} = \text{giri al minuto} \\ \text{Rev. / min.}$$

SVASATURA / COUNTERSINKING



CONTORNATURA CONTOURING



MATERIALE / MATERIAL			HSS 5% Co	HSS + TiN	Metallo Duro Carbide	HSS 5% Co	HSS 5% Co	HSS 5% Co	HSS 5% Co	HSS + TiN	Metallo Duro Carbide
ACCIAIO/Steel < 500 N/mm ²	Vc m/min.		17÷22	17÷22	40÷80	35÷45	35÷45	35÷45	17÷22	17÷22	40÷80
	Ø 10	Vf mm/min.	85	85	250	165	165	165	85	85	250
	Ø 20		45	45	125	85	85	85	45	45	125
Ø 30	30		30	85	55	55	55	30	30	85	
ACCIAIO/Steel 500 ÷ 800 N/mm ²	Vc m/min.		10÷15	10÷15	30÷60	20÷30	20÷30	20÷30	10÷15	10÷15	30÷60
	Ø 10	Vf mm/min.	60	60	170	110	110	110	60	60	170
	Ø 20		30	30	85	55	55	55	30	30	85
Ø 30	20		20	60	35	35	35	20	20	60	
ACCIAIO/Steel 800 ÷ 1000 N/mm ²	Vc m/min.		8÷12	8÷12	20÷40	15÷20	15÷20	15÷20	8÷12	8÷12	20÷40
	Ø 10	Vf mm/min.	35	35	100	55	55	55	35	35	100
	Ø 20		25	25	60	35	35	35	25	25	60
Ø 30	15		15	45	25	25	25	15	15	45	
ACCIAIO INOX/ Stainless Steel 1000 ÷ 1300 N/mm ²	Vc m/min.		6÷10	6÷10	20÷40	12÷15	12÷15	12÷15	6÷10	6÷10	20÷40
	Ø 10	Vf mm/min.	30	30	100	45	45	45	30	30	100
	Ø 20		15	15	60	25	25	25	15	15	60
Ø 30	10		10	40	20	20	20	10	10	40	
ACCIAIO RESISTENTE AD ABRASIONE/ Abrasion Resistant Steel <420 HB	Vc m/min.				15÷20						15÷20
	Ø 10	Vf mm/min.			55						55
	Ø 20		35							35	
Ø 30	25								25		
BRONZO DURO/ Hard Bronze	Vc m/min.				10÷12						10÷12
	Ø 10	Vf mm/min.			30						30
	Ø 20		16							16	
Ø 30	10								10		
ACCIAIO TRATTATO/ Treated Steel > 60 HRC	Vc m/min.				8÷10						8÷10
	Ø 10	Vf mm/min.			20						20
	Ø 20		10							10	
Ø 30	8								8		
GHISA/Cast Iron	Vc m/min.		15÷25	15÷25	40÷80	20÷40	20÷40	20÷40	15÷25	15÷25	40÷80
	Ø 10	Vf mm/min.	70	70	250	125	125	125	70	70	250
	Ø 20		40	40	150	75	75	75	40	40	150
Ø 30	30		30	100	50	50	50	30	30	100	
ALLUMINIO/ Alluminium	Vc m/min.		35÷45	35÷45	40÷100	50÷60	50÷60	50÷60	35÷45	35÷45	40÷100
	Ø 10	Vf mm/min.	200	200	350	255	255	255	200	200	350
	Ø 20		130	130	230	180	180	180	130	130	230
Ø 30	110		110	200	150	150	150	110	110	200	
OTTONE/Bronze Brass	Vc m/min.		20÷30	20÷30		30÷40	30÷40	30÷40	20÷30	20÷30	
	Ø 10	Vf mm/min.	120	120		150	150	150	120	120	
	Ø 20		85	85		110	110	110	85	85	
Ø 30	70		70		90	90	90	70	70		
RAME/Copper	Vc m/min.		15÷25	15÷25	50÷80	20÷30	20÷30	20÷30	15÷25	15÷25	50÷80
	Ø 10	Vf mm/min.	95	95	300	120	120	120	95	95	300
	Ø 20		60	60	200	80	80	80	60	60	200
Ø 30	45		45	175	65	65	65	45	45	175	
LAMINATI/Laminated	Vc m/min.		35÷70	35÷70		50÷100	50÷100	50÷100	35÷70	35÷70	
	Ø 10	Vf mm/min.	300	300		400	400	400	300	300	
	Ø 20		200	200		300	300	300	200	200	
Ø 30	150		150		250	250	250	150	150		
NYLON-PVC-PLASTICA/ Plastics	Vc m/min.		35÷70	35÷70		50÷100	50÷100	50÷100	35÷70	35÷70	
	Ø 10	Vf mm/min.	400	400		450	450	450	400	400	
	Ø 20		300	300		350	350	350	300	300	
Ø 30	250		250		300	300	300	250	250		