

# SHANK END MILLS

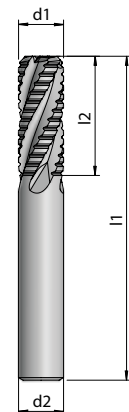
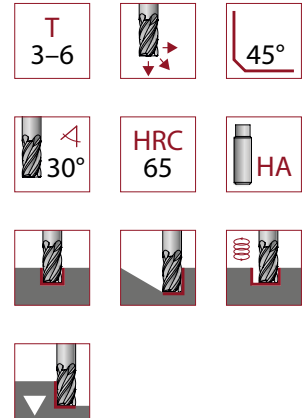
## HPC ROUGHING END MILLS | S 1230

Short version   Number of teeth 3				
Article no.	d1	d2	l1	l2
12300600	6	6	57	14
12300800	8	8	63	16

Short version   Number of teeth 4				
Article no.	d1	d2	l1	l2
12301000	10	10	72	24

Short version   Number of teeth 5				
Article no.	d1	d2	l1	l2
12301200	12	12	80	30
12301400	14	14	83	32
12301600	16	16	105	32
12301800	18	18	108	36

Short version   Number of teeth 6				
Article no.	d1	d2	l1	l2
12302000	20	20	109	40



Shoulder milling	$a_p \times a_e = 1d \times 0,4d$
Slot milling	$a_p \times a_e = 0,65d \times 1d$



Cutting data for short version		Shoulder	Slot
Material	N/mm <sup>2</sup>	v <sub>c</sub> m/min	
<b>P</b> Gen. structural/ case hard. steels 1.0037   1.0570   1.0503   1.7131 Tool/ tempering steels 1.2367   1.2379   1.7225 Alloyed/ cold work steels 1.2312   1.2767   1.3505   1.7707	< 1100	130	90
	< 1400	80	-
	-	130-170	110-140
<b>M</b> Stainless steels 1.4301   1.4305   1.4034 Stainless steels 1.4435   1.4571	< 750	120-140	80-130
	< 850	80-120	60-90
<b>S</b> Titanium alloys 3.7164   3.7165 Nickel alloys Inconel 713	-	50	40
	-	50	40
<b>H</b> Hardened steel HRC 45-50 Hardened steel HRC 51-58 Hardened steel HRC 59-65	-	250	-
	-	210	-
	-	170	-

d1	Shoulder	Slot
	fz mm	
6	0,050	0,035
8	0,060	0,040
10	0,080	0,055
12	0,090	0,065
14	0,100	0,080
16	0,120	0,090
18	0,140	0,100
20	0,150	0,110