CUTTING CONDITIONS

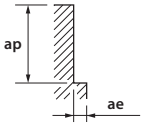
Milling | Endmills | Cutting conditions

NEO-PHS

Side milling

	C≤0,2% - GG S55C · SS400 · FC250 ~750 N/mm²		SCM - SKD SKT · SKS · SCM ~30 N/mm²		30~38 HRC NAK55 · HPM1 · SKT · SKD 30~38 N/mm²		38~45 HRC - SUS SUS304 · SKD 38~45 N/mm²		45~55 HRC - HRS Titanium alloy 45~55 N/mm²		Heat resistant alloy steel Inconel	
Ø	S (min⁻¹)	F (mm/min)	S (min⁻¹)	F (mm/min)	S (min⁻¹)	F (mm/min)	S (min⁻¹)	F (mm/min)	S (min⁻¹)	F (mm/min)	S (min⁻¹)	F (mm/min)
3	12,500	1,100	9,550	840	8,100	625	7,650	615	7,400	545	3,800	220
4	9,750	1,200	7,550	985	6,400	680	6,050	710	5,850	630	3,000	240
5	7,950	1,300	6,150	1,050	5,250	725	4,950	775	4,800	670	2,450	245
6	6,750	1,600	5,250	1,200	4,450	890	4,200	835	4,050	695	2,100	250
8	5,050	1,550	3,950	1,100	3,350	815	3,150	810	3,050	675	1,600	225
10	4,100	1,450	3,200	1,050	2,700	725	2,550	715	2,450	635	1,250	215
12	3,400	1,400	2,650	1,000	2,250	720	2,100	675	2,050	605	1,050	210
16	2,550	1,200	2,000	940	1,700	635	1,600	555	1,550	505	765	210
20	2,050	985	1,600	755	1,350	590	1,250	515	1,250	460	635	200

Max cutting depth



ap	ae
≤ 1,5 D	≤ 0,2 D

ap	ae
≤ 1,5 D	≤ 0,1 D

ap	ae
≤ 1,5 D	≤ 0,05 D

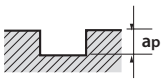
1. Use a rigid and precise machine and holder,
2. Please adjust the speed and feed when the cutting depth is large or when machines with low rigidity are used
3. Please use a suitable fluid with high smoke retardant properties
4. During dry (no fluid) milling, please use air blow to remove disposable chips from the milling area and to eliminate chip packing

NEO-PHS

Slotting

	C≤0,2% - GG S55C · SS400 · FC250 ~750 N/mm²		SCM - SKD SKT · SKS · SCM ~30 N/mm²		30~38 HRC NAK55 · HPM1 · SKT · SKD 30~38 N/mm²		38~45 HRC - SUS SUS304 · SKD 38~45 N/mm²		45~55 HRC - HRS Titanium alloy 45~55 N/mm²		Heat resistant alloy steel Inconel	
Ø	S (min⁻¹)	F (mm/min)	S (min⁻¹)	F (mm/min)	S (min⁻¹)	F (mm/min)	S (min⁻¹)	F (mm/min)	S (min⁻¹)	F (mm/min)	S (min⁻¹)	F (mm/min)
3	10,500	730	8,550	680	7,850	520	7,450	460	7,200	440	2,500	125
4	7,750	730	6,400	775	5,900	520	5,550	515	5,400	495	1,900	135
5	6,200	735	5,100	755	4,700	545	4,450	545	4,300	535	1,500	145
6	5,150	740	4,250	635	3,950	575	3,700	570	3,600	545	1,250	145
8	3,850	600	3,200	550	2,950	550	2,800	525	2,700	510	945	155
10	3,100	580	2,550	540	2,350	480	2,250	475	2,150	455	760	145
12	2,600	560	2,150	475	1,950	460	1,850	440	1,800	435	630	145
16	1,950	555	1,600	430	1,500	370	1,400	370	1,350	365	475	110
20	1,550	475	1,300	380	1,200	355	1,100	330	1,100	330	380	110

Max cutting depth



ap
≤ 1 D

ap
≤ 0,5 D

ap
≤ 0,2 D

1. Use a rigid and precise machine and holder,
2. Please adjust the speed and feed when the cutting depth is large or when machines with low rigidity are used
3. Please use a suitable fluid with high smoke retardant properties
4. During dry (no fluid) milling, please use air blow to remove disposable chips from the milling area and to eliminate chip packing