



## Reamer

HSS Reamer	D 2
Carbide Reamer	D 10
Counter	D 15
Endmill	D 19
Drill	D 21

## HSS REAMER

### Hand Reamer



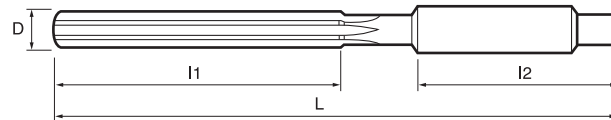
- SKH51(M2), JIS
- Straight Flutes & ST Shank
- Suitable for through Holes
- Easy Resharpener



CODE NO	D	L	l <sub>1</sub>	l <sub>2</sub>	Flutes
GEM 100010~14	1.0M~1.4M	65	15	23	4
GEM 100015~19	1.5M~1.9M	65	23	23	4
GEM 100020~29	2.0M~2.9M	65	30	23	4
GEM 100030~39	3.0M~3.9M	72	40	23	4
GEM 100040~49	4.0M~4.9M	80	40	30	6
GEM 100050~59	5.0M~5.9M	90	45	35	6
GEM 100060~69	6.0M~6.9M	100	50	38	6
GEM 100070~79	7.0M~7.9M	105	55	38	6
GEM 100080~89	8.0M~8.9M	115	60	42	6
GEM 100090~99	9.0M~9.9M	125	65	45	6
GEM 100100~109	10.0M~10.9M	130	70	45	6
GEM 100110~119	11.0M~11.9M	140	75	50	6
GEM 100120~129	12.0M~12.9M	150	75	58	6
GEM 100130~139	13.0M~13.9M	160	80	62	6
GEM 100140	14.0M	165	85	62	8
GEM 100150	15.0M	175	90	66	8
GEM 100160	16.0M	185	95	70	8
GEM 100170	17.0M	190	100	70	8
GEM 100180	18.0M	200	105	75	8
GEM 100190	19.0M	210	105	85	8
GEM 100200	20.0M	220	110	88	8
GEM 100210	21.0M	230	120	88	8
GEM 100220	22.0M	235	120	90	8
GEM 100230	23.0M	250	130	95	8
GEM 100240	24.0M	255	130	100	8
GEM 100250	25.0M	260	130	102	8
GEM 100260	26.0M	270	130	102	8
GEM 100270	27.0M	270	140	102	10
GEM 100280	28.0M	290	140	120	10
GEM 100290	29.0M	290	140	120	10
GEM 100300	30.0M	305	140	120	10

Reamer

### Hand Reamer



CODE NO	D	L	l1	l2	Flutes
GEM 100310	31.0M	305	150	120	10
GEM 100320	32.0M	315	150	120	10
GEM 100330	33.0M	315	160	120	10
GEM 100340	34.0M	315	160	120	10
GEM 100350	35.0M	315	160	120	10
GEM 100360	36.0M	320	160	120	10
GEM 100370	37.0M	320	165	120	10
GEM 100380	38.0M	325	165	125	10
GEM 100390	39.0M	325	165	125	10
GEM 100400	40.0M	330	165	125	12
GEM 100410	41.0M	330	170	125	12
GEM 100420	42.0M	335	170	125	12
GEM 100430	43.0M	335	170	125	12
GEM 100440	44.0M	340	170	125	12
GEM 100450	45.0M	340	170	125	12
GEM 100460	46.0M	345	170	125	12
GEM 100470	47.0M	345	175	125	12
GEM 100480	48.0M	350	180	125	12
GEM 100490	49.0M	350	180	125	12
GEM 100500	50.0M	355	180	125	12
GEM 100510	51.0M	355	180	125	12
GEM 100520	52.0M	355	180	125	12
GEM 100530	53.0M	360	195	125	14
GEM 100540	54.0M	360	195	125	14
GEM 100550	55.0M	360	195	125	14
GEM 100560	56.0M	360	195	125	14
GEM 100570	57.0M	370	200	130	14
GEM 100580	58.0M	370	200	130	14
GEM 100590	59.0M	370	200	130	14
GEM 100600	60.0M	370	200	130	14

## HSS REAMER

Economical

### Spiral Chucking Reamer-7° ST



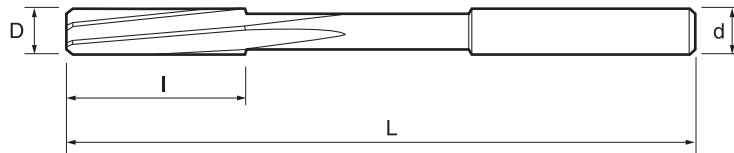
- SKH55(M35), DIN, H7 Tolerance
- LH Helical 7° & ST Shank
- Suitable for through Holes
- For Mold Hole



CODE NO	D	L	l	d	Flutes
GEM E407020	2.0M	55	16	D	4
GEM E407021~4	2.1M~2.4M	55	16	D	4
GEM E407025	2.5M	55	16	D	4
GEM E407026~9	2.6M~2.9M	55	16	D	4
GEM E407030	3.0M	61	15	D	6
GEM E407031~4	3.1M~3.4M	61	15	D	6
GEM E407035	3.5M	61	15	D	6
GEM E407036~9	3.6M~3.9M	61	15	D	6
GEM E407040	4.0M	75	19	4	6
GEM E407041~4	4.1M~4.4M	75	19	4	6
GEM E407045	4.5M	75	19	4.5	6
GEM E407046~9	4.6M~4.9M	75	19	4.5	6
GEM E407050	5.0M	86	23	5	6
GEM E407051~4	5.1M~5.4M	86	23	5	6
GEM E407055	5.5M	86	23	5.5	6
GEM E407056~9	5.6M~5.9M	86	23	5.5	6
GEM E407060	6.0M	93	26	6	6
GEM E407061~4	6.1M~6.4M	93	26	6	6
GEM E407065	6.5M	93	26	6	6
GEM E407066~9	6.6M~6.9M	93	26	6	6
GEM E407070	7.0M	109	31	7	6
GEM E407071~4	7.1M~7.4M	109	31	7	6
GEM E407075	7.5M	109	31	7	6
GEM E407076~9	7.6M~7.9M	109	31	7	6
GEM E407080	8.0M	117	33	8	6
GEM E407081~4	8.1M~8.4M	117	33	8	6
GEM E407085	8.5M	117	33	8	6
GEM E407086~9	8.6M~8.9M	117	33	8	6
GEM E407090	9.0M	125	36	9	6
GEM E407091~4	9.1M~9.4M	125	36	9	6
GEM E407095	9.5M	125	36	9	6

Reamer

### Spiral Chucking Reamer-7° ST

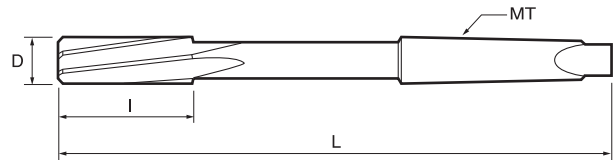


CODE NO	D	L	I	d	Flutes
GEM E407096~9	9.6M~9.9M	125	36	9	6
GEM E407100	10.0M	133	38	10	6
GEM E407101~4	10.1M~10.4M	133	38	10	6
GEM E407105	10.5M	133	38	10	6
GEM E407106~9	10.5M~10.8M	133	38	10	6
GEM E407110	11.0M	142	41	10	6
GEM E407111~4	11.1M~11.4M	142	41	10	6
GEM E407115	11.5M	142	41	10	6
GEM E407116~9	11.6M~11.9M	142	41	10	6
GEM E407120	12.0M	151	44	10	6
GEM E407121~4	12.1M~12.4M	151	44	10	6
GEM E407125	12.5M	151	44	10	6
GEM E407126~9	12.6M~12.9M	151	44	10	6
GEM E407130	13.0M	151	44	10	6
GEM E407135	13.5M	151	44	12	6
GEM E407140	14.0M	160	47	12	8
GEM E407145	14.5M	160	47	12	8
GEM E407150	15.0M	162	50	12	8
GEM E407155	15.5M	162	50	12	8
GEM E407160	16.0M	170	52	16	8
GEM E407165	16.5M	170	52	16	8
GEM E407170	17.0M	175	54	16	8
GEM E407175	17.5M	175	54	16	8
GEM E407180	18.0M	182	56	16	8
GEM E407185	18.5M	182	56	16	8
GEM E407190	19.0M	189	58	16	8
GEM E407195	19.5M	189	58	16	8
GEM E407200	20.0M	195	60	20	8
GEM E407210	21.0M	205	60	20	8
GEM E407220	22.0M	205	60	20	8

## HSS REAMER

Economical

### Spiral Chucking Reamer-7° MT



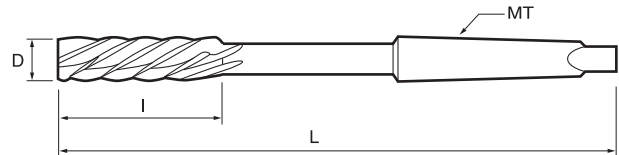
- SKH55(M35), DIN, H7 Tolerance
- LH Helical 7° & ST Shank
- Suitable for through Holes
- For Mold Hole

SKH 55°
M35
DIN
H7
LH 7°
MT

CODE NO	D	L	I	MT	Flutes
GEM E407060M	6	130	35	MT1	6
GEM E407080M	8	150	40		6
GEM E407100M	10	160	40		6
GEM E407120M	12	170	45		6
GEM E407130M	13	180	45		6
GEM E407140M	14	190	50		8
GEM E407150M	15	205	50	MT2	8
GEM E407160M	16	205	50		8
GEM E407170M	17	210	55		8
GEM E407180M	18	220	55		8
GEM E407190M	19	220	55		8
GEM E407200M	20	230	60		8
GEM E407210M	21	240	60		8
GEM E407220M	22	240	60		8
GEM E407230M	23	250	65		8
GEM E407240M	24	265	65		MT3
GEM E407250M	25	270	65	8	
GEM E407260M	26	270	70	8	
GEM E407270M	27	270	70	10	
GEM E407280M	28	270	70	10	
GEM E407290M	29	280	75	10	
GEM E407300M	30	280	75	10	
GEM E407320M	32	300	80	10	
GEM E407340M	34	325	80	MT4	10
GEM E407350M	35	325	80		10
GEM E407360M	36	330	85		10
GEM E407380M	38	330	85		12
GEM E407400M	40	330	85		12

Reamer

### Hi Helical Reamer-45° MT



- SKH55(M35), DIN, H7 Tolerance
- LH Helical 45° & MT Shank
- Suitable for through Holes
- Much Higher Feed Rate
- Excellent Finish Surface

SKH 55°
M35
DIN
H7
LH 45°
MT

CODE NO	D	L	I	MT	Flutes
GEM E445060M	6	130	35	MT1	3
GEM E445080M	8	150	40		3
GEM E445090M	9	150	40		3
GEM E445100M	10	160	40		3
GEM E445110M	11	160	40		3
GEM E445120M	12	170	45		3
GEM E445130M	13	180	45		3
GEM E445140M	14	190	50	MT2	4
GEM E445150M	15	205	50		4
GEM E445160M	16	205	50		4
GEM E445170M	17	210	55		4
GEM E445180M	18	220	55		4
GEM E445190M	19	220	55		4
GEM E445200M	20	230	60		4
GEM E445210M	21	240	60	4	
GEM E445220M	22	240	60	4	
GEM E445230M	23	250	65	4	
GEM E445240M	24	265	65	MT3	4
GEM E445250M	25	270	65		4
GEM E445260M	26	270	70		6
GEM E445270M	27	270	70		6
GEM E445280M	28	270	70		6
GEM E445290M	29	280	75		6
GEM E445300M	30	280	75		6
GEM E445310M	32	300	80	6	
GEM E445340M	34	325	80	MT4	8
GEM E445350M	35	325	80		8
GEM E445360M	36	330	85		8
GEM E445380M	38	330	85		8
GEM E445400M	40	330	85		8

Reamer

## HSS REAMER

Economical

### Hi Helical Reamer-45° ST



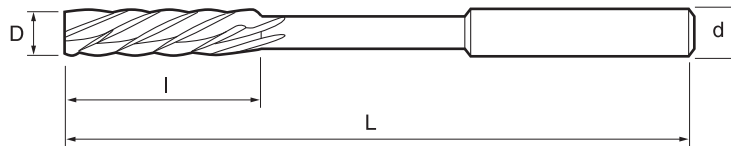
- SKH55(M35), DIN, H7 Tolerance
- LH Helical 45° & ST Shank
- Suitable for through Holes
- Much Higher Feed Rate
- Excellent Finish Surface



CODE NO	D	L	l	d	Flutes
GEM E445020	2.0M	55	16	D	3
GEM E445021~4	2.1M~2.4M	55	16	D	3
GEM E445025	2.5M	55	16	D	3
GEM E445026~9	2.6M~2.9M	55	16	D	3
GEM E445030	3.0M	61	15	D	3
GEM E445031~4	3.1M~3.4M	61	15	D	3
GEM E445035	3.5M	61	15	D	3
GEM E445036~9	3.6M~3.9M	61	15	D	3
GEM E445040	4.0M	75	19	4	3
GEM E445041~4	4.1M~4.4M	75	19	4	3
GEM E445045	4.5M	75	19	4.5	3
GEM E445046~9	4.6M~4.9M	75	19	4.5	3
GEM E445050	5.0M	86	23	5	3
GEM E445051~4	5.1M~5.4M	86	23	5	3
GEM E445055	5.5M	86	23	5.5	3
GEM E445056~9	5.6M~5.9M	86	23	5.5	3
GEM E445060	6.0M	93	26	6	3
GEM E445061~4	6.1M~6.4M	93	26	6	3
GEM E445065	6.5M	93	26	6	3
GEM E445066~9	6.6M~6.9M	93	26	6	3
GEM E445070	7.0M	109	31	7	3
GEM E445071~4	7.1M~7.4M	109	31	7	3
GEM E445075	7.5M	109	31	7	3
GEM E445076~9	7.6M~7.9M	109	31	7	3
GEM E445080	8.0M	117	33	8	3
GEM E445071~4	8.1M~8.4M	117	33	8	3
GEM E445085	8.5M	117	33	8	3
GEM E445086~9	8.6M~8.9M	117	33	8	3
GEM E445090	9.0M	125	36	9	3



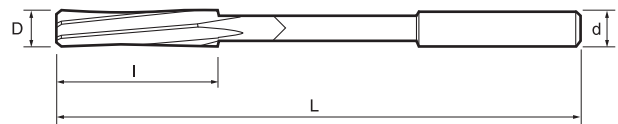
### Hi Helical Reamer-45° ST



CODE NO	D	L	l	d	Flutes
GEM E445091~4	9.1M~9.4M	125	36	9	3
GEM E445095	9.5M	125	36	9	3
GEM E445096~9	9.6M~9.9M	125	36	9	3
GEM E445100	10.0M	133	38	10	3
GEM E445101~4	10.1M~10.4M	133	38	10	3
GEM E445105	10.5M	133	38	10	3
GEM E445106~9	10.6M~10.9M	133	38	10	3
GEM E445110	11.0M	142	41	10	3
GEM E445111~4	11.1M~11.4M	142	41	10	3
GEM E445115	11.5M	142	41	10	3
GEM E445116~9	11.6M~11.9M	142	41	10	3
GEM E445120	12.0M	151	44	10	3
GEM E445121~4	12.1M~12.4M	151	44	10	3
GEM E445125	12.5M	151	44	10	3
GEM E445126~9	12.6M~12.9M	151	44	10	3
GEM E445130	13.0M	151	44	10	3
GEM E445135	13.5M	151	44	12	3
GEM E445140	14.0M	160	47	12	4
GEM E445145	14.5M	160	47	12	4
GEM E445150	15.0M	162	50	12	4
GEM E445155	15.5M	162	50	12	4
GEM E445160	16.0M	170	52	16	4
GEM E445165	16.5M	170	52	16	4
GEM E445170	17.0M	175	54	16	4
GEM E445175	17.5M	175	54	16	4
GEM E445180	18.0M	182	56	16	4
GEM E445185	18.5M	182	56	16	4
GEM E445190	19.0M	189	58	16	4
GEM E445195	19.5M	189	58	16	4
GEM E445200	20.0M	195	60	20	4
GEM E445210	21.0M	205	60	20	4
GEM E445220	22.0M	205	60	20	4

## CARBIDE REAMER

### Carbide Spiral Chucking Reamer-7° ST



- Carbide, DIN, H7 Tolerance
- Unequal Flutes, ~HRC 50
- LH Helical 7° & ST Shank
- All and Top Solid
- Suitable for through Holes
- For Mold Hole

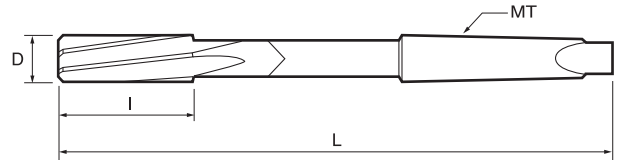
WC DIN H7 LH 7° ~HRC 50 ST

CODE NO	D	d	L	l
GEM C407020	2.0M	3	62	15
GEM C407030	3.0M	3	62	15
GEM C407040	4.0M	4	62	19
GEM C407050	5.0M	5	79	23
GEM C407060	6.0M	6	79	25
GEM C407070	7.0M (B)	7	109	27
GEM C407080	8.0M (B)	8	117	28
GEM C407090	9.0M (B)	9	125	29
GEM C407100	10.0M (B)	10	133	32
GEM C407110	11.0M (B)	10	142	32
GEM C407120	12.0M (B)	10	151	35
GEM C407130	13.0M (B)	10	151	35
GEM C407140	14.0M (B)	16	200	36
GEM C407150	15.0M (B)	16	200	36
GEM C407160	16.0M (B)	16	200	38
GEM C407170	17.0M (B)	16	200	38
GEM C407180	18.0M (B)	20	200	38
GEM C407190	19.0M (B)	20	200	38
GEM C407200	20.0M (B)	20	200	38
GEM C407220	22.0M (B)	20	235	42
GEM C407250	25.0M (B)	25	260	45

Reamer



### Carbide Spiral Chucking Reamer-7° MT



- Carbide, DIN, H7 Tolerance
- Unequal Flutes, ~HRc 50
- LH Helical 7° & MT Shank
- All and Top Solid
- Suitable for through Holes
- For Mold Hole

WC DIN H7 LH 7° ~HRc 50 MT

CODE NO	D	d	L	MT
GEM C407060M	6M (B)	130	26	MT1
GEM C407080M	8M (B)	150	28	
GEM C407100M	10M (B)	160	32	
GEM C407120M	12M (B)	180	35	
GEM C407130M	13M (B)	190	35	
GEM C407140M	14M (B)	190	36	
GEM C407150M	15M (B)	205	36	MT2
GEM C407160M	16M (B)	205	38	
GEM C407170M	17M (B)	210	38	
GEM C407180M	18M (B)	220	38	
GEM C407190M	19M (B)	220	38	
GEM C407200M	20M (B)	230	38	
GEM C407220M	22M (B)	240	42	MT3
GEM C407250M	25M (B)	270	45	
GEM C407300M	30M (B)	280	48	
GEM C407320M	32M (B)	300	48	

## CARBIDE REAMER

### Carbide Hi Helical Reamer-45° ST



- Carbide, DIN, H7 Tolerance
- All and Top Solid, ~HRc 50
- LH Helical 45° & ST Shank
- Suitable for through Holes
- Much Higher Feed Rate
- Excellent Finish Surface

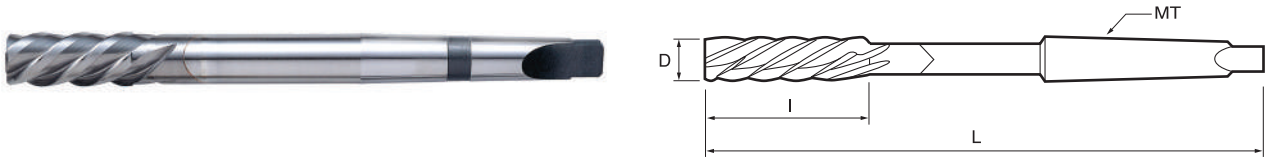
WC DIN H7 LH 45° ~HRc 50 ST

CODE NO	D	d	L	l
GEM C445020	2M	3	62	12
GEM C445030	3M	4	62	12
GEM C445040	4M	4	62	12
GEM C445050	5M	6	79	16
GEM C445060	6M	6	79	16
GEM C445070	7M (B)	8	109	20
GEM C445080	8M (B)	8	117	20
GEM C445090	9M (B)	10	125	26
GEM C445100	10M (B)	10	133	26
GEM C445110	11M (B)	12	142	28
GEM C445120	12M (B)	12	151	28
GEM C445130	13M (B)	12	151	30
GEM C445140	14M (B)	16	200	35
GEM C445150	15M (B)	16	200	35
GEM C445160	16M (B)	16	200	36
GEM C445170	17M (B)	16	200	38
GEM C445180	18M (B)	20	200	38
GEM C445190	19M (B)	20	200	38
GEM C445200	20M (B)	20	200	38
GEM C445220	22M (B)	20	235	42
GEM C445250	25M (B)	20	260	45

Reamer



### Carbide Hi Helical Reamer-45° MT



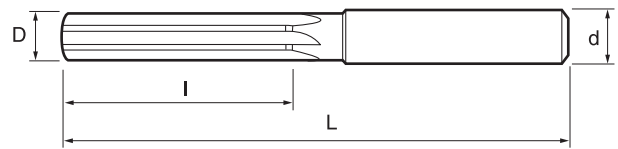
- Carbide, DIN, H7 Tolerance
- All and Top Solid, ~HRc 50
- LH Helical 45° & MT Shank
- Suitable for through Holes
- Much Higher Feed Rate
- Excellent Finish Surface

WC DIN H7 LH 45° ~HRc 50 MT

CODE NO	D	d	L	MT
GEM C445060M	6 (B)	130	26	MT1
GEM C445080M	8 (B)	150	28	
GEM C445100M	10 (B)	160	32	
GEM C445120M	12 (B)	180	35	
GEM C445130M	13 (B)	190	35	
GEM C445140M	14 (B)	190	36	
GEM C445150M	15 (B)	205	36	MT2
GEM C445160M	16 (B)	205	38	
GEM C445170M	17 (B)	210	38	
GEM C457180M	18 (B)	220	38	
GEM C445190M	19 (B)	220	38	
GEM C445200M	20 (B)	230	38	
GEM C445220M	22 (B)	240	42	MT3
GEM C445250M	25 (B)	270	45	
GEM C445300M	30 (B)	280	48	
GEM C445320M	32 (B)	300	48	

## CARBIDE REAMER

### Carbide Hand Reamer



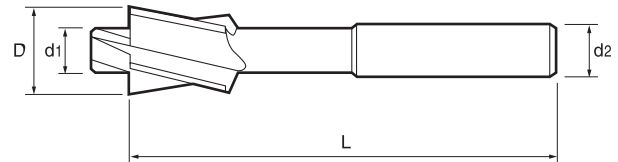
- Carbide, H7 Tolerance
- Straight Flutes & ST Shank
- Suitable for through & Blind Holes
- All Solid, ~HRc 50

WC H7 SF ST ~HRc 50

CODE NO	D	d	L	l
GEM C100020	2	3	62	15
GEM C100030	3	4	62	25
GEM C100040	4	4	62	28
GEM C100050	5	6	79	31
GEM C100060	6	6	79	31
GEM C100070	7	8	79	35
GEM C100080	8	8	79	35
GEM C100090	9	10	106	50
GEM C100100	10	10	106	50
GEM C100110	11	12	106	50
GEM C100120	12	12	106	50
GEM C100130	13	12	106	50
GEM C100140	14	12	106	50
GEM C100150	15	16	106	50
GEM C100160	16	16	106	50
GEM C100200	20	20	106	50

Reamer

### Counter Bore-KOR



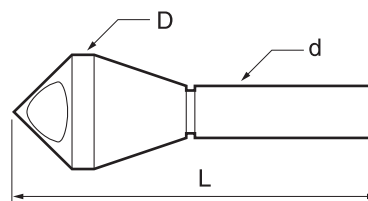
- SKH51(M2), DIN, 4 Flutes
- RH Helix 25°, ST Shank
- Suitable for Hole of Mold Bolt

**HSS** **M2** **RH 25°** **ST**

CODE NO	Pr No	d1	D	l	d2
GEM 625030	3M	3.2	6.5	60	6
GEM 625040	4M	4.3	8.0	70	8
GEM 625050	5M	5.3	9.4	80	8
GEM 625060	6M	6.4	11.0	90	10
GEM 625070	7M	7.4	12.5	95	10
GEM 625080	8M	8.4	14.0	100	12
GEM 625090	9M	9.4	16.0	105	12
GEM 625100	10M	10.5	17.5	110	12
GEM 625110	11M	11.5	18.5	115	12
GEM 625120	12M	13.0	20.0	125	12
GEM 625130	13M	14.0	22.0	130	12
GEM 625140	14M	15.0	24.0	130	12
GEM 625150	15M	16.0	25.5	140	12
GEM 625160	16M	17.0	27.0	145	12
GEM 625170	17M	18.0	28.0	150	12
GEM 625180	18M	19.0	29.0	150	12
GEM 625190	19M	20.0	30.0	155	16
GEM 625200	20M	21.0	31.0	155	16
GEM 625210	21M	22.0	32.0	160	16
GEM 625220	22M	23.0	33.0	160	16
GEM 625230	23M	24.0	34.5	160	16
GEM 625240	24M	25.0	36.0	175	16
GEM 625250	25M	26.0	40.0	175	16
GEM 625260	26M	27.0	41.0	180	20
GEM 625270	27M	28.0	42.0	180	20
GEM 625280	28M	29.0	43.5	180	20
GEM 625290	29M	30.0	45.0	180	20
GEM 625300	30M	31.0	46.0	180	20

## COUNTER

### Counter Sink-90° Hole



- Bur away
- TiN, TiCN, TiAlN
- Excellent Finish Surface
- ST & MT Shank available
- For Plastics and Soft Steel

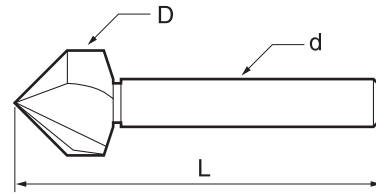


SKH55(Co 5%), M35				
CODE NO	D	L	d	
GEM 850100	10.0M	50	6	
GEM 850150	15.0M	55	8	
GEM 850200	20.0M	65	10	
GEM 850250	25.0M	75	12	
GEM 850300	30.0M	82	12	
GEM 850350	35.0M	90	12	
GEM 850400	40.0M	95	12	
GEM 850450	45.0M	115	12	
GEM 850500	50.0M	120	12	

SKH59(Co 8%), M42				
CODE NO	D	L	d	
GEM 890100	10.0M	50	6	
GEM 890150	15.0M	55	8	
GEM 890200	20.0M	65	10	
GEM 890250	25.0M	75	12	
GEM 890300	30.0M	82	12	
GEM 890350	35.0M	90	12	
GEM 890400	40.0M	95	12	
GEM 890450	45.0M	115	12	
GEM 890500	50.0M	120	12	



## Counter Sink-90°, 1F



- Bur away
- TiN, TiCN, TiAlN
- Good Finish Surface
- ST & MT Shank available

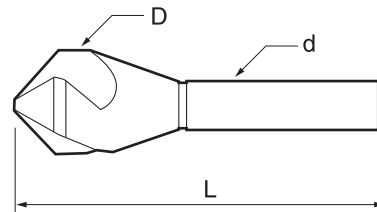
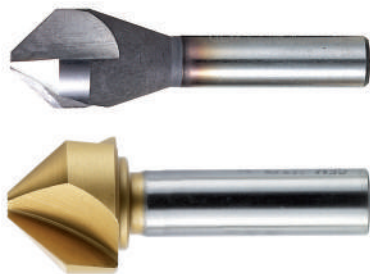


SKH55(Co 5%), M35		SKH 55	SKH 59	M35	M42	ST	TiN	TiCN	TiAlN
CODE NO	D	L		d					
GEM 851100	10.0M	50		6					
GEM 851150	15.0M	55		8					
GEM 851200	20.0M	60		10					
GEM 851250	25.0M	65		12					
GEM 851300	30.0M	70		12					
GEM 851350	35.0M	75		12					
GEM 851400	40.0M	80		12					
GEM 851450	45.0M	85		12					
GEM 851500	50.0M	90		12					

SKH59(Co 8%), M42		SKH 55	SKH 59	M35	M42	ST	TiN	TiCN	TiAlN
CODE NO	D	L		d					
GEM 891100	10.0M	50		6					
GEM 891150	15.0M	55		8					
GEM 891200	20.0M	60		10					
GEM 891250	25.0M	65		12					
GEM 891300	30.0M	70		12					
GEM 891350	35.0M	75		12					
GEM 891400	40.0M	80		12					
GEM 891450	45.0M	85		12					
GEM 891500	50.0M	90		12					

## COUNTER

### Counter Sink-90°, 3F



- Bur away
- TiN, TiCN, TiAlN
- Good Finish Surface
- ST & MT Shank available



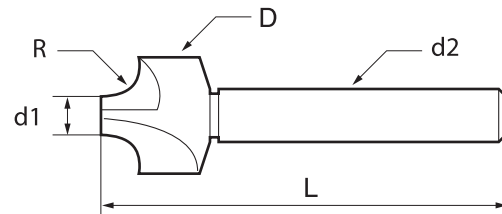
SKH55(Co 5%), M35				
CODE NO	D	L	d	
GEM 853100	10.0M	50	6	
GEM 853150	15.0M	55	8	
GEM 853200	20.0M	60	10	
GEM 853250	25.0M	65	12	
GEM 853300	30.0M	70	12	
GEM 853350	35.0M	75	12	
GEM 853400	40.0M	80	12	
GEM 853450	45.0M	85	12	
GEM 853500	50.0M	90	12	

SKH59(Co 8%), M42				
CODE NO	D	L	d	
GEM 893100	10.0M	50	6	
GEM 893150	15.0M	55	8	
GEM 893200	20.0M	60	10	
GEM 893250	25.0M	65	12	
GEM 893300	30.0M	70	12	
GEM 893350	35.0M	75	12	
GEM 893400	40.0M	80	12	
GEM 893450	45.0M	85	12	
GEM 893500	50.0M	90	12	

Reamer



## Corner Rounding End Mill



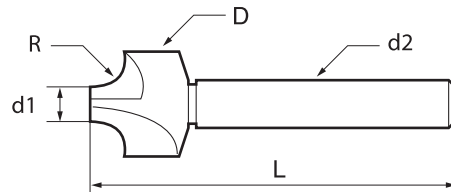
- SKH59(Co 8%), DIN
- For R Forming, ST Shank
- 4 Flutes

**SKH 59** **M42** **ST**

CODE NO	R	d1	D	L	d2
GEM R810010	1.0R	6	8	60	10
GEM R810015	1.5R	6	9	60	10
GEM R810020	2.0R	6	10	60	10
GEM R810025	2.5R	6	11	60	10
GEM R810030	3.0R	6	12	60	12
GEM R810035	3.5R	6	13	60	12
GEM R810040	4.0R	6	14	60	12
GEM R810045	4.5R	6	15	60	12
GEM R810050	5.0R	6	16	60	12
GEM R810060	6.0R	8	20	67	16
GEM R810070	7.0R	8	22	71	16
GEM R810080	8.0R	8	24	71	16
GEM R810090	9.0R	8	26	85	25
GEM R810100	10.0R	8	28	85	25
GEM R810110	11.0R	10	32	90	25
GEM R810120	12.0R	10	34	90	25
GEM R810130	13.0R	16	42	100	25
GEM R810140	14.0R	16	44	100	25
GEM R810150	15.0R	16	46	100	25
GEM R810160	16.0R	16	48	100	25
GEM R810180	18.0R	16	52	112	32
GEM R810200	20.0R	16	56	112	32

## ENDMILL

### Carbide Corner Rounding End Mill

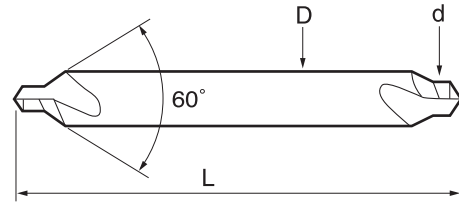


- Carbide, DIN
- For R Forming, ST Shank
- All Solid, Tip Blazed
- 2~4 Flutes, ~HRc 50

WC ST ~HRc 50

CODE NO	R	d <sub>1</sub>	D	L	d <sub>2</sub>
GEM CR810005	0.5R	1.0	2.1	45	4
GEM CR810010	1.0R	3.9	6.0	52	6
GEM CR810015	1.5R	2.9	6.0	52	6
GEM CR810020	2.0R	1.9	6.0	52	6
GEM CR810025	2.5R	3.0	8.0	52	8
GEM CR810030	3.0R	1.9	8.0	52	8
GEM CR810035	3.5R	2.9	10.0	52	10
GEM CR810040	4.0R	1.9	10.0	52	10
GEM CR810045	4.5R	2.9	12.0	63	12
GEM CR810050	5.0R	1.9	12.0	63	12
GEM CR810060	6.0R (B)	7.9	20.0	110	16
GEM CR810080	8.0R (B)	8.9	25.0	110	20
GEM CR810100	10.0R (B)	8.9	29.0	110	20
GEM CR810120	12.0R (B)	8.9	33.0	120	25

Carbide Center Drill A Type(60°)



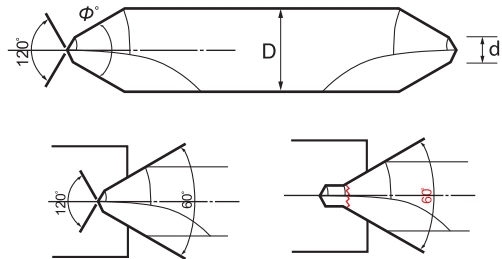
- Carbide
- For Centering & Chamfering
- Form A, ~HRc 50

**HSS** **M2** **JIS** **ST**

CODE NO	d	L	D
GEM C700010	1.0M	44	4
GEM C700015	1.5M	44	4
GEM C700020	2.0M	52	6
GEM C700025	2.5M	52	6
GEM C700030	3.0M	52	6
GEM C700040	4.0M	63	8
GEM C700050	5.0M	63	10
GEM C700060	6.0M	79	12
GEM C700080	8.0M	79	16

## DRILL

### HSS NC Double Point Drill-JIS



- HSS, TiALN, JIS
- For Centering
- Preventing Broken Pilot

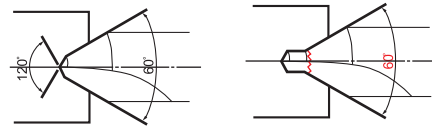
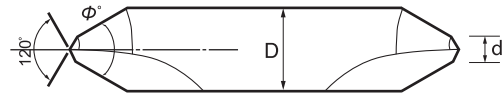


CODE NO	d	D	L	ANGLE
GEM SPC700010J	1.0M	4	56	120°x60°
GEM SPC700015J	1.5M	4	56	120°x60°
GEM SPC700020J	2.0M	6	56	120°x60°
GEM SPC700025J	2.5M	8	65	120°x60°
GEM SPC700030J	3.0M	10	70	120°x60°
GEM SPC700040J	4.0M	12	80	120°x60°
GEM SPC700050J	5.0M	16	100	120°x60°
GEM SPC700060J	6.0M	20	120	120°x60°

Reamer

CODE NO	d	D	L	ANGLE
GEM SPC750010J	1.0M	4	56	120°x90°
GEM SPC750015J	1.5M	4	56	120°x90°
GEM SPC750020J	2.0M	6	56	120°x90°
GEM SPC750025J	2.5M	8	65	120°x90°
GEM SPC750030J	3.0M	10	70	120°x90°
GEM SPC750040J	4.0M	12	80	120°x90°
GEM SPC750050J	5.0M	16	100	120°x90°
GEM SPC750060J	6.0M	20	120	120°x90°

## HSS NC Double Point Drill-KOR



- HSS, TIALN, KOR
- For Centering
- Preventing Broken Pilot

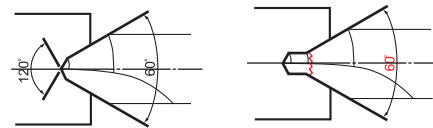
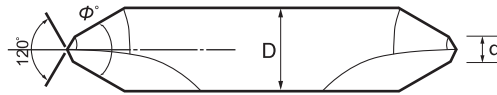


CODE NO	d	D	L	ANGLE
GEM SPC700010K	1.0M	4	50	120°x60°
GEM SPC700015K	1.5M	4	50	120°x60°
GEM SPC700020K	2.0M	6	50	120°x60°
GEM SPC700025K	2.5M	8	50	120°x60°
GEM SPC700030K	3.0M	8	55	120°x60°
GEM SPC700040K	4.0M	8	55	120°x60°
GEM SPC700050K	5.0M	10	65	120°x60°
GEM SPC700060K	6.0M	12	70	120°x60°
GEM SPC700080K	8.0M	16	80	120°x60°

CODE NO	d	D	L	ANGLE
GEM SPC750010K	1.0M	4	50	120°x90°
GEM SPC750015K	1.5M	4	50	120°x90°
GEM SPC750020K	2.0M	6	50	120°x90°
GEM SPC750025K	2.5M	8	50	120°x90°
GEM SPC750030K	3.0M	8	55	120°x90°
GEM SPC750040K	4.0M	8	55	120°x90°
GEM SPC750050K	5.0M	10	65	120°x90°
GEM SPC750060K	6.0M	12	70	120°x90°
GEM SPC750080K	8.0M	16	80	120°x90°

## DRILL

### Carbide NC Double Point Drill-KOR



- HSS, TiAlN, KOR
- For Centering
- Preventing Broken Pilot



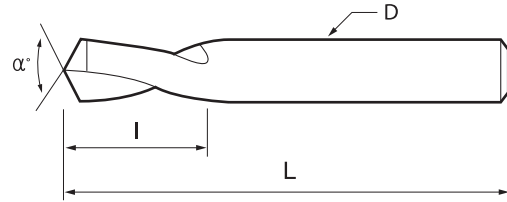
CODE NO	d	D	L	ANGLE
GEM SPC700010K	1.0M	4	44	120°x60°
GEM SPC700015K	1.5M	4	44	120°x60°
GEM SPC700020K	2.0M	6	52	120°x60°
GEM SPC700025K	2.5M	8	52	120°x60°
GEM SPC700030K	3.0M	8	52	120°x60°
GEM SPC700040K	4.0M	8	63	120°x60°
GEM SPC700050K	5.0M	10	63	120°x60°
GEM SPC700060K	6.0M	12	79	120°x60°
GEM SPC700080K	8.0M	16	79	120°x60°

Reamer

CODE NO	d	D	L	ANGLE
GEM SPC750010K	1.0M	4	44	120°x90°
GEM SPC750015K	1.5M	4	44	120°x90°
GEM SPC750020K	2.0M	6	52	120°x90°
GEM SPC750025K	2.5M	8	52	120°x90°
GEM SPC750030K	3.0M	8	52	120°x90°
GEM SPC750040K	4.0M	8	63	120°x90°
GEM SPC750050K	5.0M	10	63	120°x90°
GEM SPC750060K	6.0M	12	79	120°x90°
GEM SPC750080K	8.0M	16	79	120°x90°



## HSS Co NC Spotting Drill



- SKH55(Co 5%), M35
- Helix 16°, ST Shank
- For Centering & Chamfering of tapping holes on one operation
- Only suitable for shallow drilling depth

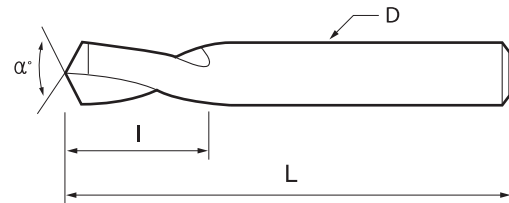
SKH 55
M35
RH 16°
ST

CODE NO	D	L	I	d
GEM 900030	3	48	12	3
GEM 900040	4	53	13	4
GEM 900050	5	56	16	5
GEM 900060	6	62	20	6
GEM 900080	8	75	25	8
GEM 900100	10	85	25	10
GEM 900120	12	95	30	12
GEM 900140	14	105	34	14
GEM 900160	16	110	34	16
GEM 900200	20	125	38	20



## DRILL

### Long HSS NC Spotting Drill



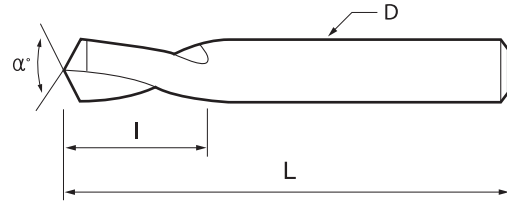
- SKH55(Co 5%), M35
- Helix 16°, ST Shank
- For Centering & Chamfering of tapping holes on one operation
- Only suitable for shallow drilling depth

SKH 55
M35
RH 16°
ST

SKH55-M35				
CODE NO	D	L	l	d
GEM 910030	3	80	12	3
GEM 910040	4	100	15	4
GEM 910050	5	120	16	5
GEM 910060	6	140	20	6
GEM 910080	8	140	22	8
GEM 910100	10	170	36	10
GEM 910120	12	170	32	12
GEM 910160	16	200	36	16
GEM 910200	20	200	42	20

Reamer

Carbide NC Leading Drill-TiAlN



- Carbide, TiAlN
- For Centering & Chamfering
- All Solid
- Form 90°

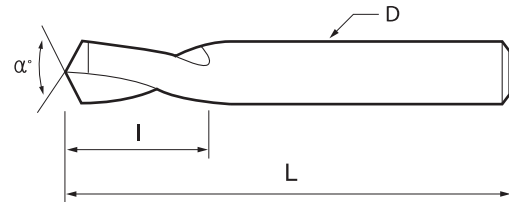
WC ST RH 10° TiAlN

SKH55-M35	D	L	l	d
TLDS900030	3	44	12	3
TLDS900040	4	44	14	4
TLDS900050	5	52	16	5
TLDS900060	6	52	18	6
TLDS900080	8	63	24	8
TLDS900010	10	79	26	10
TLDS900012	12	79	26	12



## DRILL

### Carbide V-Mill Drill-Flat Type



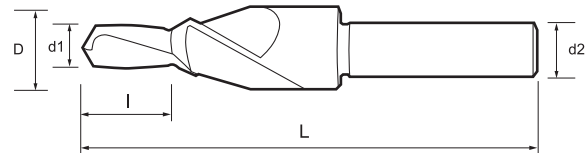
- Carbide
- For Centering & Chamfering
- For AL & V-Cutting
- Form 90°, ~HRc 50

WC ST ~HRc 50

SKH55-M35				
CODE NO	D	L	l	d
C900020	2	40	10	2
C900030	3	45	12	3
C900040	4	45	14	4
C900050	5	54	16	5
C900060	6	54	18	6
C900080	8	65	24	8
C900100	10	80	26	10
C900120	12	80	26	12
C900140	16	100	28	16
C900160	16	100	28	16
C900200	20	120	35	20
C900250	25	150	40	25

Reamer

### HSS Co Step Drill-90° & 180°



• Drilling with Counter Sinking or Counter Boring

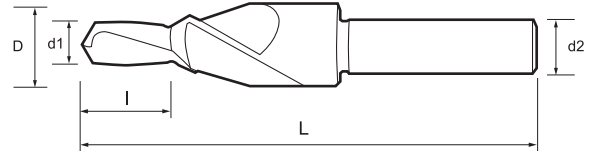
**SKH 55** **M35** **ST**

180°							
CODE NO	PR NO	d <sub>1</sub>	D	d <sub>2</sub>	l	L	
GEM STD1025050	M2.5	2.9	5.0	5.0	7	45	
GEM STD1030060	M3.0	3.4	6.0	6.0	9	45	
GEM STD1040080	M4.0	4.5	8.0	8.0	11	50	
GEM STD1050100	M5.0	5.5	10.0	10.0	13	55	
GEM STD1060110	M6.0	6.6	11.0	11.0	15	63	
GEM STD1080150	M8.0	9.0	15.0	12.0	19	100	
GEM STD1100180	M10.0	11.0	18.0	12.0	23	110	
GEM STD1120200	M12.0	14.0	20.0	12.0	28	110	
GEM STD1140240	M14.0	16.0	24.0	12.0	34	120	

90°							
CODE NO	PR NO	d <sub>1</sub>	D	d <sub>2</sub>	l	L	
GEM STD030065	M3.0	3.2	6.5	6.0	9	45	
GEM STD035076	M3.5	3.7	7.6	7.0	10	50	
GEM STD040086	M4.0	4.3	8.6	8.0	11	50	
GEM STD050104	M5.0	5.3	10.4	10.0	13	55	
GEM STD060124	M6.0	6.4	12.4	12.0	15	63	
GEM STD080164	M8.0	8.4	16.4	12.0	19	100	
GEM STD100204	M10.0	10.5	20.4	12.0	23	110	
GEM STD120250	M12.0	13.0	25.0	12.0	28	120	

## DRILL

### HSS Co Step Drill for Tap



• For Tap Predrilling with Counter Sinking

**SKH 55** **M35** **ST**

90°							
CODE NO	PR NO	d1	D	d2	l	L	
GEM STD030040T	M3	2.5	4.0	4.0	8	52	
GEM STD040050T	M4	3.3	5.0	5.0	11	58	
GEM STD050060T	M5	4.2	6.0	6.0	13	66	
GEM STD060066T	M6	5.0	6.6	6.0	16	70	
GEM STD080090T	M8	6.8	9.0	9.0	20	84	
GEM STD100110T	M10	8.5	11.0	10.0	24	95	
GEM STD120140T	M12	10.2	14.0	12.0	29	107	
GEM STD140160T	M14	12.0	16.0	12.0	32	115	
GEM STD160180T	M16	14.0	18.0	12.0	34	135	



