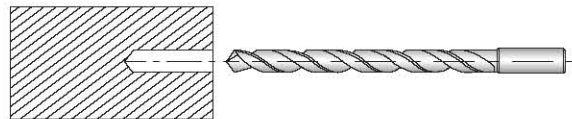
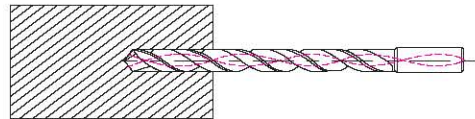


[SF510, SF520 series]

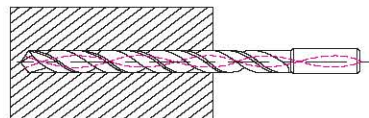
WORKPIECE	CARBON STEELS, ALLOY STEELS ~1060 N/mm ²		CAST IRON 250~350 N/mm ²		DUCTILE CAST IRON 400~500 N/mm ²	
	63~125 m/min		63~125 m/min		60~80 m/min	
V	63~125 m/min		63~125 m/min		60~80 m/min	
DIAMETER(mm)	RPM	fn (mm/rev)	RPM	fn (mm/rev)	RPM	fn (mm/rev)
3	7,500	0.06 ~ 0.12	7,500	0.06 ~ 0.12	7,500	0.06 ~ 0.12
4	6,400	0.08 ~ 0.16	6,400	0.08 ~ 0.16	5,600	0.08 ~ 0.16
5	5,800	0.10 ~ 0.20	5,800	0.10 ~ 0.20	4,500	0.10 ~ 0.20
6	4,800	0.12 ~ 0.24	4,800	0.12 ~ 0.24	3,800	0.12 ~ 0.24
8	3,600	0.16 ~ 0.28	3,600	0.16 ~ 0.28	2,800	0.16 ~ 0.28
10	2,900	0.20 ~ 0.35	2,900	0.20 ~ 0.35	2,300	0.20 ~ 0.35
12	2,900	0.24 ~ 0.42	2,400	0.24 ~ 0.42	1,900	0.24 ~ 0.42
14	2,050	0.28 ~ 0.46	2,050	0.28 ~ 0.46	1,600	0.28 ~ 0.46



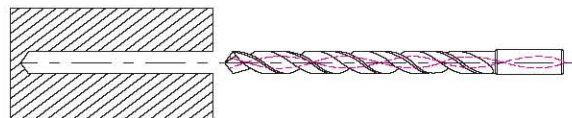
1. Guide Drilling should be done as Diameter+0.1mm between 3xD and 5xD



2. For Main Drilling, proceed with low RPM at Guide Drilling segment
(RPM 300, FEED 400mm/min)



3. Just before the end of Guide Drilling segment, reduce feed to zero and increase the RPM according to Recommended



4. After then, proceed main drilling by increasing feed without step drilling.



5. When coming out from Guide Drilling start point after drilling, RPM should be reduced as 300 and feed should be 1000 mm/min.

6. When coming out from Guide Drilling segment to the outside, the feed should be decreased as 50%

[HPI503, 505, 508, HP503 series]

WORKPIECE	NON-ALLOY STEELS		ALLOY STEELS		SOFT CAST IRON		STRONG CAST IRON	
	< 700N/mm ²		< 1000N/mm ²		< HB240, GG25		< HB300, GG40	
DIAMETER(mm)	RPM	fn (mm/rev)	RPM	fn (mm/rev)	RPM	fn (mm/rev)	RPM	fn (mm/rev)
1.0	16,250	0.05	14,800	0.05	26,600	0.05	17,300	0.05
2.0	16,250	0.07	14,800	0.07	26,600	0.07	17,300	0.07
3.0	16,000	0.16	14,500	0.16	26,000	0.16	17,000	0.16
4.0	12,000	0.17	11,000	0.17	20,000	0.17	13,000	0.17
5.0	9,550	0.18	8,600	0.18	16,000	0.18	10,000	0.18
6.0	8,000	0.20	7,200	0.20	13,000	0.20	8,500	0.20
7.0	6,800	0.22	6,100	0.22	11,500	0.22	7,300	0.22
8.0	6,000	0.24	5,400	0.24	9,900	0.24	6,400	0.24
9.0	5,300	0.27	4,800	0.27	8,800	0.27	5,700	0.27
10.0	4,800	0.30	4,300	0.30	8,000	0.30	5,100	0.30
12.0	4,000	0.33	3,600	0.33	6,600	0.33	4,250	0.33
14.0	3,400	0.36	3,050	0.36	5,700	0.36	3,650	0.36
16.0	3,000	0.39	2,700	0.39	5,000	0.39	3,200	0.39
18.0	2,650	0.42	2,400	0.42	4,400	0.42	2,850	0.42
20.0	2,400	0.45	2,150	0.45	4,000	0.45	2,550	0.45

※ Reduce each product feed as shown below.

HPI503(3xD) : Feed 100%

HPI505(5xD) : Feed 90%

HPI508(8xD) : Feed 70~80%

[SSD, SSDL series]

WORKPIECE	TOOL STEELS, ALLOY STEELS		ALUMINIUM, ALUMINIUM ALLOY		BRASS, BRONZE		EPOXY, RESIN	
	DIAMETER (mm)	RPM	fn (mm/rev)	RPM	fn (mm/rev)	RPM	fn (mm/rev)	RPM
3	4000~7000	0.02	10000~12000	0.03	7000~10000	0.02	9000~12000	0.08
5	2400~4200	0.03	6000~8000	0.05	4200~6000	0.04	5400~7200	0.08
8	1500~2600	0.05	3700~5000	0.08	2600~3700	0.08	3400~4500	0.09
12	1000~1700	0.06	2500~3200	0.12	1700~2500	0.12	2200~3000	0.11

[SSTD series]

WORKPIECE	TOOL STEELS, ALLOY STEELS		ALUMINIUM, ALUMINIUM ALLOY		BRASS, BRONZE		EPOXY, RESIN	
	DIAMETER (mm)	RPM	fn (mm/rev)	RPM	fn (mm/rev)	RPM	fn (mm/rev)	RPM
3	4,000~7,000	0.02	10,000~12,000	0.03	7,000~10,000	0.02	9,000~12,000	0.08
5	2,400~4,200	0.03	6,000~8,000	0.05	4,200~6,000	0.04	5,400~7,200	0.08
8	1,500~2,600	0.05	3,700~5,000	0.08	2,600~3,700	0.08	3,400~4,500	0.09
12	1,000~1,700	0.06	2,500~3,200	0.12	1,700~2,500	0.12	2,200~3,000	0.11