

FORNAX

Cutting Tools



**SOLID ENDMILL &
MICRO ENDMILL &
THREAD MILL &
REAMER &
SOLID CARBIDE DRILL &
MICRO DRILL &
FLAT BOTTOM DRILL &
STRAIGHT FLUTE TX DRILL &
CUSTOM TOOLS &
MAKE YOUR CUSTOMIZED TOOLS**

MINI CATALOGUE

TABLE OF CONTENTS

Please Click for
related page

I- ENDMILL

I.A High Performance Endmill (Square/ Chamfer/ Radius).....	3-4
I.B High Performance Ballnose	5
I.C High Performance Aluminium	6
I.D High Performance Aluminium Ball Nose.....	7
I.E Finishing Endmill.....	8
I.F Long Neck Endmill (Square).....	9-10
I.G Long Neck Endmill (Radius).....	11-12
I.H Long Neck Endmill (Ball Nose).....	13-14
I.I Chamfer Endmill	15

II- Thread Mill

II.A Single Form.....	16
II.B Tri-From	17
II.C Multi-Form	18
II.D Multi-Form-UNC	19
II.E Multi-Form-UNF	20
II.F Multi-Form-UNJF	21
II.G Multi-Form-NPT	22

III- Reamer

III.A Spiral Reamer	23-28
III.B Straight Reamer	29-34

IV- Drill

IV.A High Performance Drill 3xD.....	35-46
IV.B High Performance Drill 5xD.....	47-58
IV.C High Performance Drill 8xD	59-65
IV.D High Performance Drill 12xD	66-69
IV.E High Performance Drill 15xD	70-73
IV.F High Performance Drill 20xD	74-76
IV.G High Performance Drill 25xD	77-78
IV.H High Performance Flat Bottom Drill	79-89
IV.I Straight Flute Drill	90-100
IV.J Micro Drill	101-105

V- Customized Tools

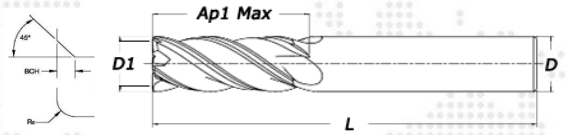
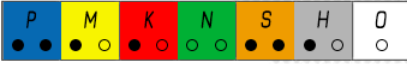
V.A Crown of The King	106
V.B Some of Customized Tools	107
V.C Make your Customized Tools	108-122

VI- Why FORNAX Cutting Tools

VI.A Details	123
--------------------	---------------------



- Unequal flute spacing.
- Centre cutting.
- D1 tolerance e8
- You can perform your operations with HPEM series endmill. However, if you want to advance in a particular material, you can choose - specific (geometry, rod and dragfinishing) endmill.
- Single tool for both roughing and finishing operations requiring fewer setups.
- Standard items listed.
- Additional styles and coatings made-to-order.



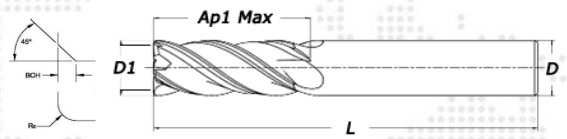
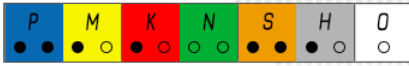
ENDMILL

Description	Grade	D1	D	Ap1 Max	L	Re	BCH	Z
HPEM03030080500000004	FP15PE	3	3	8	50	0	0	4
HPEM03030080500000104	FP15PE	3	3	8	50		0,1	4
HPEM03030080500050004	FP15PE	3	3	8	50	0,5		4
HPEM03030080500100004	FP15PE	3	3	8	50	1		4
HPEM04040100500000004	FP15PE	4	4	10	50	0	0	4
HPEM04040100500000104	FP15PE	4	4	10	50		0,1	4
HPEM04040100500050004	FP15PE	4	4	10	50	0,5		4
HPEM04040100500100004	FP15PE	4	4	10	50	1		4
HPEM05050120500000004	FP15PE	5	5	12	50	0	0	4
HPEM05050120500000154	FP15PE	5	5	12	50		0,15	4
HPEM05050120500050004	FP15PE	5	5	12	50	0,5		4
HPEM05050120500100004	FP15PE	5	5	12	50	1		4
HPEM06060130570000004	FP15PE	6	6	13	57	0	0	4
HPEM06060130570000254	FP15PE	6	6	13	57		0,15	4
HPEM06060130570050004	FP15PE	6	6	13	57	0,5		4
HPEM06060130570100004	FP15PE	6	6	13	57	1		4
HPEM08080190630000004	FP15PE	8	8	19	63	0	0	4
HPEM08080190630000304	FP15PE	8	8	19	63		0,2	4
HPEM08080190630050004	FP15PE	8	8	19	63	0,5		4
HPEM08080190630100004	FP15PE	8	8	19	63	1		4
HPEM10100220720000004	FP15PE	10	10	22	72	0	0	4
HPEM10100220720000354	FP15PE	10	10	22	72		0,2	4
HPEM10100220720050004	FP15PE	10	10	22	72	0,5		4
HPEM10100220720100004	FP15PE	10	10	22	72	1		4
HPEM12120280830000004	FP15PE	12	12	28	83	0	0	4
HPEM12120280830000404	FP15PE	12	12	28	83	0	0,2	4
HPEM12120280830050004	FP15PE	12	12	28	83	0,5		4
HPEM12120280830100004	FP15PE	12	12	28	83	1		4
HPEM12120300830000004	FP15PE	12	12	30	83	0	0	4
HPEM12120300830000404	FP15PE	12	12	30	83	0	0,2	4
HPEM12120300830050004	FP15PE	12	12	30	83	0,5		4
HPEM12120300830100004	FP15PE	12	12	30	83	1		4

High Performance Endmill



- Unequal flute spacing.
- Centre cutting.
- D1 tolerance e8
- You can perform your operations with HPEM series endmill. However, if you want to advance in a particular material, you can choose - specific (geometry, rod and dragfinishing) endmill.
- Single tool for both roughing and finishing operations requiring fewer setups.
- Standard items listed.
- Additional styles and coatings made-to-order.



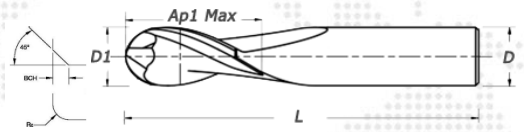
ENDMILL

Description	Grade	D1	D	Ap1 Max	L	Re	BCH	Z
HPEM14140280830000004	FP15PE	14	14	28	83	0	0	4
HPEM14140280830000454	FP15PE	14	14	28	83		0,25	4
HPEM14140280830050004	FP15PE	14	14	28	83	0,5		4
HPEM14140300830100004	FP15PE	14	14	30	83	1		4
HPEM16160320920000004	FP15PE	16	16	32	92	0	0	4
HPEM16160320920000504	FP15PE	16	16	32	92		0,3	4
HPEM16160320920050004	FP15PE	16	16	32	92	0,5		4
HPEM16160320920100004	FP15PE	16	16	32	92	1		4
HPEM16160400920000004	FP15PE	16	16	40	92	0	0	4
HPEM16160400920000504	FP15PE	16	16	40	92		0,3	4
HPEM16160400920050004	FP15PE	16	16	40	92	0,5		4
HPEM16160400920100004	FP15PE	16	16	40	92	1		4
HPEM18180320920000004	FP15PE	18	18	32	92	0	0	4
HPEM18180320920000604	FP15PE	18	18	32	92		0,35	4
HPEM18180320920050004	FP15PE	18	18	32	92	0,5		4
HPEM18180320920100004	FP15PE	18	18	32	92	1		4
HPEM20200381040000004	FP15PE	20	20	38	104	0	0	4
HPEM20200381040000604	FP15PE	20	20	38	104		0,4	4
HPEM20200381040050004	FP15PE	20	20	38	104	0,5		4
HPEM20200381040100004	FP15PE	20	20	38	104	1		4

High Performance Ball Nose Endmill



- Unequal flute spacing.
- Centre cutting.
- D1 tolerance e8
- You can perform your operations with HPEM series endmill. However, if you want to advance in a particular material, you can choose - specific (geometry, rod and dragfinishing) endmill.
- Single tool for both roughing and finishing operations requiring fewer setups.
- Standard items listed.
- Additional styles and coatings made-to-order.



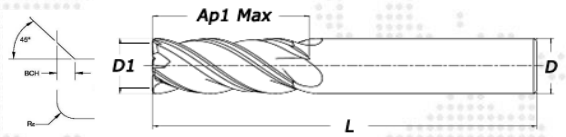
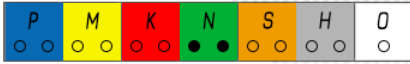
ENDMILL

Description	Grade	D1	D	Ap1 Max	L	Re	BCH	Z
HPEM03030070500150002	FP15PE	3	3	7	50	1,5		2
HPEM04040080500200002	FP15PE	4	4	8	50	2		2
HPEM05050100500250002	FP15PE	5	5	10	50	2,5		2
HPEM06060100570300002	FP15PE	6	6	10	57	3		2
HPEM08080160630400002	FP15PE	8	8	16	63	4		2
HPEM10100190720500002	FP15PE	10	10	19	72	5		2
HPEM12120220830600002	FP15PE	12	12	22	83	6		2
HPEM14140220830700002	FP15PE	14	14	22	83	7		2
HPEM16160260920800002	FP15PE	16	16	26	92	8		2
HPEM18180260920900002	FP15PE	18	18	26	92	9		2
HPEM20200311041000002	FP15PE	20	20	31	104	10		2

High Performance Al. Endmill



- Unequal flute spacing.
- Centre cutting.
- D1 tolerance e8
- Single tool for both roughing and finishing operations requiring fewer setups.
- Standard items listed.
- Additional styles and coatings made-to-order.

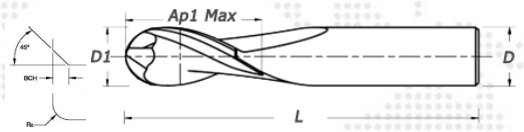
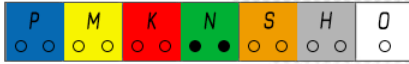


ENDMILL

Description	Grade	D1	D	Ap1 Max	L	Re	BCH	Z
HPNM03030080500000002	Polishing	3	3	8	50	0	0	2
HPNM04040100500000002	Polishing	4	4	10	50	0	0	2
HPNM05050120500000002	Polishing	5	5	12	50	0	0	2
HPNM06060130570000002	Polishing	6	6	13	57	0	0	2
HPNM08080190630000002	Polishing	8	8	19	63	0	0	2
HPNM10100220720000002	Polishing	10	10	22	72	0	0	2
HPNM12120280830000002	Polishing	12	12	28	83	0	0	2
HPNM14140280830000002	Polishing	14	14	28	83	0	0	2
HPNM16160320920000002	Polishing	16	16	32	92	0	0	2
HPNM18180320920000002	Polishing	18	18	32	92	0	0	2
HPNM20200381040000002	Polishing	20	20	38	104	0	0	2



- Unequal flute spacing.
- Centre cutting.
- D1 tolerance e8
- Single tool for both roughing and finishing operations requiring fewer setups.
- Standard items listed.
- Additional styles and coatings made-to-order.



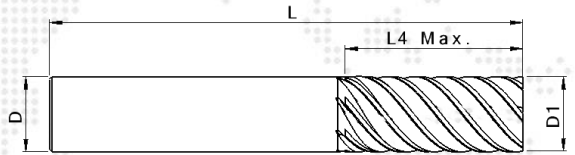
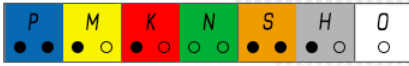
ENDMILL

Description	Grade	D1	D	Ap1 Max	L	Re	BCH	Z
HPNM03030070500150002	Polishing	3	3	7	50	0	0	2
HPNM04040080500200002	Polishing	4	4	8	50	0	0	2
HPNM05050100500250002	Polishing	5	5	10	50	0	0	2
HPNM06060100570300002	Polishing	6	6	10	57	0	0	2
HPNM08080160630400002	Polishing	8	8	16	63	0	0	2
HPNM10100190720500002	Polishing	10	10	19	72	0	0	2
HPNM12120220830600002	Polishing	12	12	22	83	0	0	2
HPNM14140220830700002	Polishing	14	14	22	83	0	0	2
HPNM16160260920800002	Polishing	16	16	26	92	0	0	2
HPNM18180260920900002	Polishing	18	18	26	92	0	0	2
HPNM20200311041000002	Polishing	20	20	31	104	0	0	2

Finishing Endmill



- Unequal flute spacing.
- Centre cutting.
- D1 tolerance e8
- You can perform your operations with HPEM series endmill. However, if you want to advance in a particular material, you can choose - specific (geometry, rod and dragfinishing) endmill.
- Single tool for both roughing and finishing operations requiring fewer setups.
- Standard items listed.
- Additional styles and coatings made-to-order.



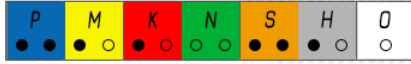
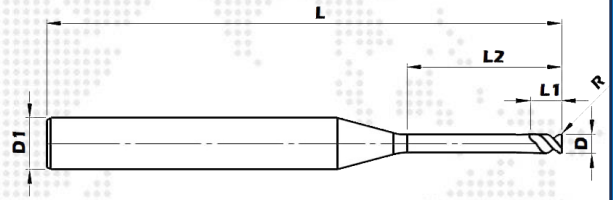
ENDMILL

Description	Grade	D1	D	L4 Max.	L	Re	BCH	Z
HPEM06060130570000007	FP15PE	6	6	13	57	0	0	7
HPEM06060250750000007	FP15PE	6	6	25	75	0	0	7
HPEM08080190630000007	FP15PE	8	8	19	63	0	0	7
HPEM08080300820000007	FP15PE	8	8	30	82	0	0	7
HPEM10100220720000007	FP15PE	10	10	22	72	0	0	7
HPEM10100451000000007	FP15PE	10	10	45	100	0	0	7
HPEM12120280830000007	FP15PE	12	12	28	83	0	0	7
HPEM12120551100000007	FP15PE	12	12	55	110	0	0	7
HPEM16160320920000007	FP15PE	16	16	32	92	0	0	7
HPEM16160801500000007	FP15PE	16	16	80	150	0	0	7
HPEM20200381040000007	FP15PE	20	20	38	104	0	0	7
HPEM20201201650000007	FP15PE	20	20	120	165	0	0	7

Long Neck Square Endmill



- Centre cutting.
- D1 tolerance e8
- Single tool for both roughing and finishing operations requiring fewer setups.
- Standard items listed.
- Additional styles and coatings made-to-order.



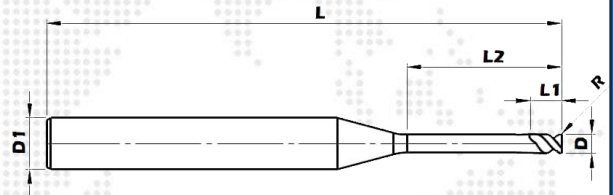
Description	Grade	D	D1	L1	L2	L	Re	Z
HPMM030R00004	FP15PE	0,3	4	0,6	4	50	0	2
HPMM030R00006	FP15PE	0,3	4	0,6	6	50	0	2
HPMM030R00008	FP15PE	0,3	4	0,6	8	50	0	2
HPMM030R00010	FP15PE	0,3	4	0,6	10	50	0	2
HPMM030R00012	FP15PE	0,3	4	0,6	12	50	0	2
HPMM030R00016	FP15PE	0,3	4	0,6	16	50	0	2
HPMM030R00020	FP15PE	0,3	4	0,6	20	50	0	2
HPMM050R00004	FP15PE	0,5	4	0,8	4	50	0	2
HPMM050R00006	FP15PE	0,5	4	0,8	6	50	0	2
HPMM050R00008	FP15PE	0,5	4	0,8	8	50	0	2
HPMM050R00010	FP15PE	0,5	4	0,8	10	50	0	2
HPMM050R00012	FP15PE	0,5	4	0,8	12	50	0	2
HPMM050R00016	FP15PE	0,5	4	0,8	16	50	0	2
HPMM050R00020	FP15PE	0,5	4	0,8	20	50	0	2
HPMM080R00004	FP15PE	0,8	4	0,8	4	50	0	2
HPMM080R00006	FP15PE	0,8	4	0,8	6	50	0	2
HPMM080R00008	FP15PE	0,8	4	0,8	8	50	0	2
HPMM080R00010	FP15PE	0,8	4	0,8	10	50	0	2
HPMM080R00012	FP15PE	0,8	4	0,8	12	50	0	2
HPMM080R00016	FP15PE	0,8	4	0,8	16	50	0	2
HPMM080R00020	FP15PE	0,8	4	0,8	20	50	0	2
HPMM100R00004	FP15PE	1	4	0,8	4	50	0	2
HPMM100R00006	FP15PE	1	4	0,8	6	50	0	2
HPMM100R00008	FP15PE	1	4	0,8	8	50	0	2
HPMM100R00010	FP15PE	1	4	0,8	10	50	0	2
HPMM100R00012	FP15PE	1	4	0,8	12	50	0	2
HPMM100R00016	FP15PE	1	4	0,8	16	50	0	2
HPMM100R00020	FP15PE	1	4	0,8	20	50	0	2
HPMM100R00025	FP15PE	1	4	0,8	25	60	0	2

ENDMILL

Long Neck Square Endmill



- Centre cutting.
- D1 tolerance e8
- Single tool for both roughing and finishing operations requiring fewer setups.
- Standard items listed.
- Additional styles and coatings made-to-order.



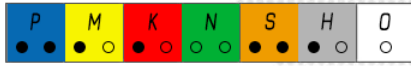
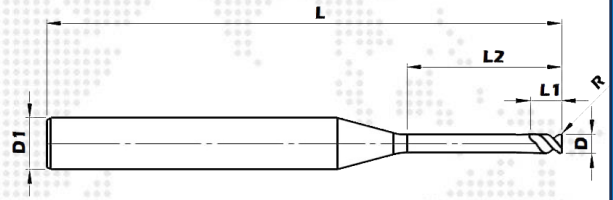
ENDMILL

Description	Grade	D	D1	L1	L2	L	Re	Z
HPMM150R00004	FP15PE	1,5	4	1,5	4	50	0	2
HPMM150R00006	FP15PE	1,5	4	1,5	6	50	0	2
HPMM150R00008	FP15PE	1,5	4	1,5	8	50	0	2
HPMM150R00010	FP15PE	1,5	4	1,5	10	50	0	2
HPMM150R00012	FP15PE	1,5	4	1,5	12	50	0	2
HPMM150R00016	FP15PE	1,5	4	1,5	16	50	0	2
HPMM150R00020	FP15PE	1,5	4	1,5	20	50	0	2
HPMM150R00025	FP15PE	1,5	4	1,5	25	60	0	2
HPMM200R00004	FP15PE	2	4	2	4	50	0	2
HPMM200R00006	FP15PE	2	4	2	6	50	0	2
HPMM200R00008	FP15PE	2	4	2	8	50	0	2
HPMM200R00010	FP15PE	2	4	2	10	50	0	2
HPMM200R00012	FP15PE	2	4	2	12	50	0	2
HPMM200R00016	FP15PE	2	4	2	16	50	0	2
HPMM200R00020	FP15PE	2	4	2	20	50	0	2
HPMM200R00025	FP15PE	2	4	2	25	60	0	2
HPMM250R00006	FP15PE	2,5	4	2,5	6	50	0	2
HPMM250R00008	FP15PE	2,5	4	2,5	8	50	0	2
HPMM250R00010	FP15PE	2,5	4	2,5	10	50	0	2
HPMM250R00012	FP15PE	2,5	4	2,5	12	50	0	2
HPMM250R00016	FP15PE	2,5	4	2,5	16	50	0	2
HPMM250R00020	FP15PE	2,5	4	2,5	20	50	0	2
HPMM250R00025	FP15PE	2,5	4	2,5	25	60	0	2

Long Neck Corner Radius Endmill



- Centre cutting.
- D1 tolerance e8
- Single tool for both roughing and finishing operations requiring fewer setups.
- Standard items listed.
- Additional styles and coatings made-to-order.



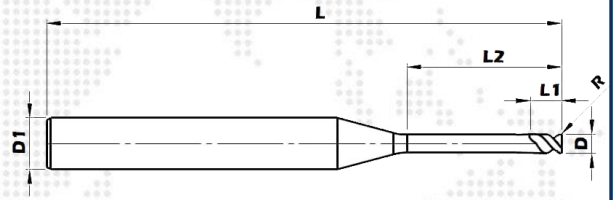
Description	Grade	D	D1	L1	L2	L	Re	Z
HPMM030R01004	FP15PE	0,3	4	0,6	4	50	0,1	2
HPMM030R01006	FP15PE	0,3	4	0,6	6	50	0,1	2
HPMM030R01008	FP15PE	0,3	4	0,6	8	50	0,1	2
HPMM030R01010	FP15PE	0,3	4	0,6	10	50	0,1	2
HPMM030R01012	FP15PE	0,3	4	0,6	12	50	0,1	2
HPMM030R01016	FP15PE	0,3	4	0,6	16	50	0,1	2
HPMM030R01020	FP15PE	0,3	4	0,6	20	50	0,1	2
HPMM050R01004	FP15PE	0,5	4	0,8	4	50	0,1	2
HPMM050R01006	FP15PE	0,5	4	0,8	6	50	0,1	2
HPMM050R01008	FP15PE	0,5	4	0,8	8	50	0,1	2
HPMM050R01010	FP15PE	0,5	4	0,8	10	50	0,1	2
HPMM050R01012	FP15PE	0,5	4	0,8	12	50	0,1	2
HPMM050R01016	FP15PE	0,5	4	0,8	16	50	0,1	2
HPMM050R01020	FP15PE	0,5	4	0,8	20	50	0,1	2
HPMM080R01004	FP15PE	0,8	4	0,8	4	50	0,1	2
HPMM080R01006	FP15PE	0,8	4	0,8	6	50	0,1	2
HPMM080R01008	FP15PE	0,8	4	0,8	8	50	0,1	2
HPMM080R01010	FP15PE	0,8	4	0,8	10	50	0,1	2
HPMM080R01012	FP15PE	0,8	4	0,8	12	50	0,1	2
HPMM080R01016	FP15PE	0,8	4	0,8	16	50	0,1	2
HPMM080R01020	FP15PE	0,8	4	0,8	20	50	0,1	2
HPMM100R01004	FP15PE	1	4	0,8	4	50	0,1	2
HPMM100R01006	FP15PE	1	4	0,8	6	50	0,1	2
HPMM100R01008	FP15PE	1	4	0,8	8	50	0,1	2
HPMM100R01010	FP15PE	1	4	0,8	10	50	0,1	2
HPMM100R01012	FP15PE	1	4	0,8	12	50	0,1	2
HPMM100R01016	FP15PE	1	4	0,8	16	50	0,1	2
HPMM100R01020	FP15PE	1	4	0,8	20	50	0,1	2
HPMM100R01025	FP15PE	1	4	0,8	25	60	0,1	2

ENDMILL

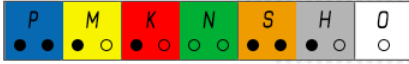
Long Neck Corner Radius Endmill



- Centre cutting.
- D1 tolerance e8
- Single tool for both roughing and finishing operations requiring fewer setups.
- Standard items listed.
- Additional styles and coatings made-to-order.



ENDMILL

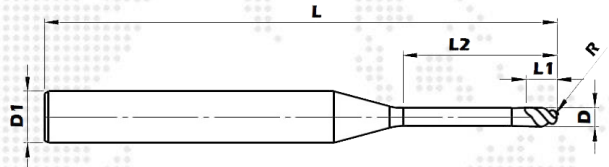


Description	Grade	D	D1	L1	L2	L	Re	Z
HPMM150R02004	FP15PE	1,5	4	1,5	4	50	0,2	2
HPMM150R02006	FP15PE	1,5	4	1,5	6	50	0,2	2
HPMM150R02008	FP15PE	1,5	4	1,5	8	50	0,2	2
HPMM150R02010	FP15PE	1,5	4	1,5	10	50	0,2	2
HPMM150R02012	FP15PE	1,5	4	1,5	12	50	0,2	2
HPMM150R02016	FP15PE	1,5	4	1,5	16	50	0,2	2
HPMM150R02020	FP15PE	1,5	4	1,5	20	50	0,2	2
HPMM150R02025	FP15PE	1,5	4	1,5	25	60	0,2	2
HPMM200R02004	FP15PE	2	4	2	4	50	0,2	2
HPMM200R02006	FP15PE	2	4	2	6	50	0,2	2
HPMM200R02008	FP15PE	2	4	2	8	50	0,2	2
HPMM200R02010	FP15PE	2	4	2	10	50	0,2	2
HPMM200R02012	FP15PE	2	4	2	12	50	0,2	2
HPMM200R02016	FP15PE	2	4	2	16	50	0,2	2
HPMM200R02020	FP15PE	2	4	2	20	50	0,2	2
HPMM200R02025	FP15PE	2	4	2	25	60	0,2	2
HPMM250R02006	FP15PE	2,5	4	2,5	6	50	0,2	2
HPMM250R02008	FP15PE	2,5	4	2,5	8	50	0,2	2
HPMM250R02010	FP15PE	2,5	4	2,5	10	50	0,2	2
HPMM250R02012	FP15PE	2,5	4	2,5	12	50	0,2	2
HPMM250R02016	FP15PE	2,5	4	2,5	16	50	0,2	2
HPMM250R02020	FP15PE	2,5	4	2,5	20	50	0,2	2
HPMM250R02025	FP15PE	2,5	4	2,5	25	60	0,2	2

Long Neck Ball Nose Endmill



- Centre cutting.
- D1 tolerance e8
- Single tool for both roughing and finishing operations requiring fewer setups.
- Standard items listed.
- Additional styles and coatings made-to-order.



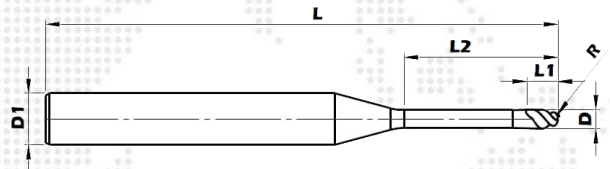
ENDMILL

Description	Grade	D	D1	L1	L2	L	Re	Z
HPMM030R01504	FP15PE	0,3	4	0,6	4	50	0,15	2
HPMM030R01506	FP15PE	0,3	4	0,6	6	50	0,15	2
HPMM030R01508	FP15PE	0,3	4	0,6	8	50	0,15	2
HPMM030R01510	FP15PE	0,3	4	0,6	10	50	0,15	2
HPMM030R01512	FP15PE	0,3	4	0,6	12	50	0,15	2
HPMM030R01516	FP15PE	0,3	4	0,6	16	50	0,15	2
HPMM030R01520	FP15PE	0,3	4	0,6	20	50	0,15	2
HPMM050R02504	FP15PE	0,5	4	0,8	4	50	0,25	2
HPMM050R02506	FP15PE	0,5	4	0,8	6	50	0,25	2
HPMM050R02508	FP15PE	0,5	4	0,8	8	50	0,25	2
HPMM050R02510	FP15PE	0,5	4	0,8	10	50	0,25	2
HPMM050R02512	FP15PE	0,5	4	0,8	12	50	0,25	2
HPMM050R02516	FP15PE	0,5	4	0,8	16	50	0,25	2
HPMM050R02520	FP15PE	0,5	4	0,8	20	50	0,25	2
HPMM080R04004	FP15PE	0,8	4	0,8	4	50	0,4	2
HPMM080R04006	FP15PE	0,8	4	0,8	6	50	0,4	2
HPMM080R04008	FP15PE	0,8	4	0,8	8	50	0,4	2
HPMM080R04010	FP15PE	0,8	4	0,8	10	50	0,4	2
HPMM080R04012	FP15PE	0,8	4	0,8	12	50	0,4	2
HPMM080R04016	FP15PE	0,8	4	0,8	16	50	0,4	2
HPMM080R04020	FP15PE	0,8	4	0,8	20	50	0,4	2
HPMM100R05004	FP15PE	1	4	0,8	4	50	0,5	2
HPMM100R05006	FP15PE	1	4	0,8	6	50	0,5	2
HPMM100R05008	FP15PE	1	4	0,8	8	50	0,5	2
HPMM100R05010	FP15PE	1	4	0,8	10	50	0,5	2
HPMM100R05012	FP15PE	1	4	0,8	12	50	0,5	2
HPMM100R05016	FP15PE	1	4	0,8	16	50	0,5	2
HPMM100R05020	FP15PE	1	4	0,8	20	50	0,5	2
HPMM100R05025	FP15PE	1	4	0,8	25	60	0,5	2
HPMM150R07504	FP15PE	1,5	4	1,5	4	50	0,75	2
HPMM150R07506	FP15PE	1,5	4	1,5	6	50	0,75	2
HPMM150R07508	FP15PE	1,5	4	1,5	8	50	0,75	2

Long Neck Ball Nose Endmill



- Centre cutting.
- D1 tolerance e8
- Single tool for both roughing and finishing operations requiring fewer setups.
- Standard items listed.
- Additional styles and coatings made-to-order.



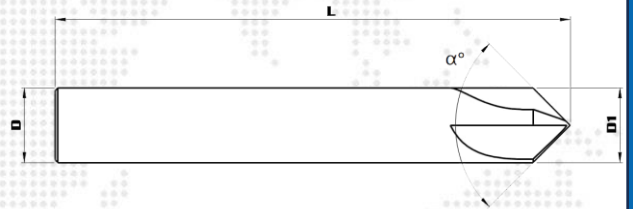
ENDMILL

Description	Grade	D	D1	L1	L2	L	Re	Z
HPMM150R07510	FP15PE	1,5	4	1,5	10	50	0,75	2
HPMM150R07512	FP15PE	1,5	4	1,5	12	50	0,75	2
HPMM150R07516	FP15PE	1,5	4	1,5	16	50	0,75	2
HPMM150R07520	FP15PE	1,5	4	1,5	20	50	0,75	2
HPMM150R07525	FP15PE	1,5	4	1,5	25	60	0,75	2
HPMM200R10004	FP15PE	2	4	2	4	50	1	2
HPMM200R10006	FP15PE	2	4	2	6	50	1	2
HPMM200R10008	FP15PE	2	4	2	8	50	1	2
HPMM200R10010	FP15PE	2	4	2	10	50	1	2
HPMM200R10012	FP15PE	2	4	2	12	50	1	2
HPMM200R10016	FP15PE	2	4	2	16	50	1	2
HPMM200R10020	FP15PE	2	4	2	20	50	1	2
HPMM200R10025	FP15PE	2	4	2	25	60	1	2
HPMM250R12506	FP15PE	2,5	4	2,5	6	50	1,25	2
HPMM250R12508	FP15PE	2,5	4	2,5	8	50	1,25	2
HPMM250R12510	FP15PE	2,5	4	2,5	10	50	1,25	2
HPMM250R12512	FP15PE	2,5	4	2,5	12	50	1,25	2
HPMM250R12516	FP15PE	2,5	4	2,5	16	50	1,25	2
HPMM250R12520	FP15PE	2,5	4	2,5	20	50	1,25	2

Chamfer Endmill



- Designed chamfer endmilling.
- Standard items listed.
- Additional styles and coatings made-to-order.



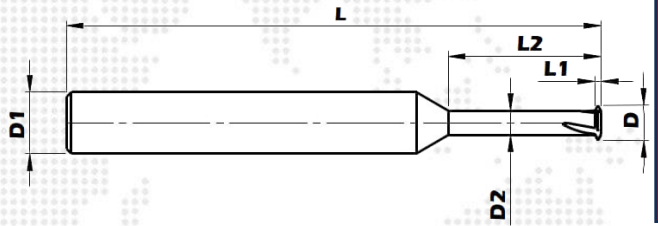
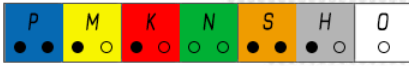
ENDMILL

Description	Grade	D1	L1	D	L	Z
HPCM04040500604	FP15PE	4	4	4	60	4
HPCM04040500904	FP15PE	4	4	4	90	4
HPCM04040501204	FP15PE	4	4	4	120	4
HPCM06060570604	FP15PE	6	6	6	60	4
HPCM06060570904	FP15PE	6	6	6	90	4
HPCM06060571204	FP15PE	6	6	6	120	4
HPCM08080630604	FP15PE	8	8	8	60	4
HPCM08080630904	FP15PE	8	8	8	90	4
HPCM08080631204	FP15PE	8	8	8	120	4
HPCM10100720606	FP15PE	10	10	10	60	6
HPCM10100720906	FP15PE	10	10	10	90	6
HPCM10100721206	FP15PE	10	10	10	120	6
HPCM12120830606	FP15PE	12	12	12	60	6
HPCM12120830906	FP15PE	12	12	12	90	6
HPCM12120831206	FP15PE	12	12	12	120	6

Single Form Thread Mill



- Solid Thread milling cutter with an integral shank that cuts on its periphery to produce a groove or a thread.
- Standard items listed.
- Choosable internal coolant. (Starts M4)
- Additional styles and coatings made-to-order.



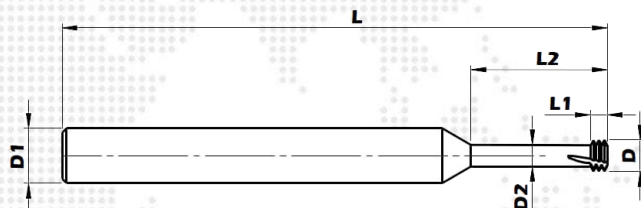
THREADMILL

Description	Grade	D	P	L1	D2	L2	D1	L	Z
HPTMM1P025Z3 – M1XP0.25	FT10PM	0,72	0,25	0,25	0,45	5	4	50	3
HPTMM16P035Z3 – M1.6XP0.35	FT10PM	1,2	0,35	0,35	0,74	5	4	50	3
HPTMM2P04Z3 – M2XP0.40	FT10PM	1,55	0,4	0,4	0,98	5	4	50	3
HPTMM25P045Z3 – M2.5XP0.45	FT10PM	1,95	0,45	0,45	1,3	6	4	50	3
HPTMM3P05Z3 – M3XP0.50	FT10PM	2,3	0,5	0,5	1,6	7	4	50	3
HPTMM4P07Z3 – M4XP0.70	FT10PM	3,1	0,7	0,7	2,1	9	4	50	3
HPTMM5P08Z3 – M5XP0.80	FT10PM	4	0,8	0,8	2,9	11	4	50	3
HPTMM6P1Z4 – M6XP1	FT10PM	4,8	1	1	3,4	14	6	57	4
HPTMM8P125Z4 – M8XP1.25	FT10PM	6,4	1,25	1,25	4,7	18	8	63	4
HPTMM10P15Z5 – M10XP1.50	FT10PM	8,2	1,5	1,5	6,1	23	10	72	5
HPTMM12P175Z5 – M12XP1.75	FT10PM	9,5	1,75	1,75	7,1	28	10	72	5

Tri-Form Thread Mill



- Solid Thread milling cutter with an integral shank that cuts on its periphery to produce a groove or a thread.
- Standard items listed.
- Choosable internal coolant. (Starts M4)
- Additional styles and coatings made-to-order.



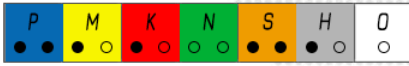
THREADMILL

Description	Grade	D	P	L1	D2	L2	D1	L	Z
HPTMM1P025Z3 – M1XP0.25	FT10PM	0,72	0,25	0,75	0,45	5	4	50	3
HPTMM16P035Z3 – M1.6XP0.30	FT10PM	1,2	0,35	1,05	0,74	5	4	50	3
HPTMM2P04Z3 – M2XP0.40	FT10PM	1,55	0,4	1,2	0,98	5	4	50	3
HPTMM25P045Z3 – M2.5XP0.45	FT10PM	1,95	0,45	1,35	1,3	6	4	50	3
HPTMM3P05Z3 – M3XP0.50	FT10PM	2,3	0,5	1,5	1,6	7	4	50	3
HPTMM4P07Z3 – M4XP0.70	FT10PM	3,1	0,7	2,1	2,1	9	4	50	3
HPTMM5P08Z3 – M5XP0.80	FT10PM	4	0,8	2,4	2,9	11	4	50	3
HPTMM6P1Z3 M6XP1	FT10PM	4,8	1	3	3,4	14	6	57	3
HPTMM8P125Z3 – M8XP1.25	FT10PM	6,4	1,25	3,75	4,7	18	8	63	3
HPTMM10P15Z3 – M10XP1.50	FT10PM	8,2	1,5	4,5	6,1	23	10	72	3
HPTMM12P175Z3 – M12XP1.75	FT10PM	9,5	1,75	5,25	7,1	28	10	72	3
HPTMM16P2Z3 – M16XP2	FT10PM	11,9	2	6	9,2	33	12	83	3
HPTMM20P25Z3 – M20XP2.5	FT10PM	15,9	2,5	7,5	13	40	16	92	3

Multi-Form Thread Mill



- Solid Thread milling cutter with an integral shank that cuts on its periphery to produce a groove or a thread.
- Standard items listed.
- Choosable internal coolant. (Starts M4)
- Additional styles and coatings made-to-order.



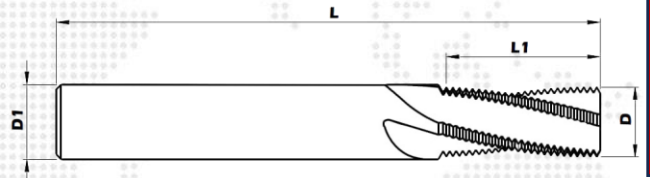
THREADMILL

Description	Grade	D	P	L1	L	D1	Z
HPTMM6P07512Z4 - M6XP0.75	FT10PM	4,5	0,75	12	6	57	4
HPTMM6P112Z4 - M6XP1	FT10PM	4,5	1	12	6	57	4
HPTMM8P116Z4 - M8XP1	FT10PM	6	1	16	6	57	4
HPTMM8P1251625Z4 - M8XP1.25	FT10PM	6	1,25	16,25	6	57	4
HPTMM10P120Z4 - M10XP1	FT10PM	7,5	1	20	8	63	4
HPTMM10P12520Z4 - M10XP1.25	FT10PM	7,5	1,25	20	8	63	4
HPTMM10P1521Z4 - M10XP1.5	FT10PM	7,5	1,5	21	8	63	4
HPTMM12P124Z4 - M12XP1	FT10PM	9,5	1	24	10	72	4
HPTMM12P1524Z4 - M12XP1.5	FT10PM	9,5	1,5	24	10	72	4
HPTMM12P1752450Z4 - M12XP1.75	FT10PM	9,5	1,75	24,5	10	72	4
HPTMM14P152850Z4 - M14XP1.5	FT10PM	10	1,5	28,5	10	72	4
HPTMM14P228Z4 - M14XP2	FT10PM	10	2	28	10	72	4
HPTMM16P1533Z5 - M16XP1.5	FT10PM	12	1,5	33	12	83	5
HPTMM16P232Z5 - M16XP2	FT10PM	12	2	32	12	83	5
HPTMM20P232Z6 - M20XP2	FT10PM	16	2	32	16	92	6
HPTMM20P2535Z6 - M20XP2.5	FT10PM	16	2,5	35	16	92	6
HPTMM24P232Z6 - M24XP2	FT10PM	19	2	32	20	104	6
HPTMM24P336Z6 - M24XP3	FT10PM	19	3	36	20	104	6

Multi-Form Thread Mill - UNC



- Solid Thread milling cutter with an integral shank that cuts on its periphery to produce a groove or a thread.
- Standard items listed.
- Choosable internal coolant. (Starts M4)
- Additional styles and coatings made-to-order.



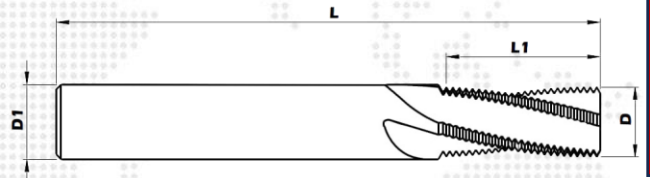
THREADMILL

Description	Grade	TPI	D	L1	L	D1	Z
HPTMUNC1/4Z4 - UNC1/4	FT10PM	20	4,8	10,2	57	6	4
HPTMUNC5/16Z4 - UNC5/16	FT10PM	18	5,5	12,7	57	6	4
HPTMUNC3/8Z4 - UNC3/8	FT10PM	16	7,5	14,3	63	8	4
HPTMUNC7/16Z4 - UNC7/16	FT10PM	14	8	18,1	63	8	4
HPTMUNC9/16Z4 - UNC9/16	FT10PM	12	10	19,5	72	10	4
HPTMUNC1/2Z4 - UNC1/2	FT10PM	13	10	19,5	72	10	4
HPTMUNC5/8Z5 - UNC5/8	FT10PM	11	12	25,4	83	12	5
HPTMUNC3/4Z5 - UNC3/4	FT10PM	10	14	30,5	82	14	5
HPTMUNC7/8Z5 - UNC7/8	FT10PM	9	16	33,9	92	16	5
HPTMUNC1Z5 - UNC1	FT10PM	8	18	38,1	104	20	5

Multi-Form Thread Mill - UNF



- Solid Thread milling cutter with an integral shank that cuts on its periphery to produce a groove or a thread.
- Standard items listed.
- Choosable internal coolant. (Starts M4)
- Additional styles and coatings made-to-order.



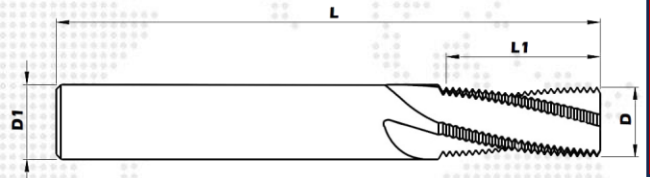
THREADMILL

Description	Grade	TPI	D	L1	L	D1	Z
HPTMUNF10Z4 - UNF10	FT10PM	32	3,6	7,9	57	6	4
HPTMUNF1/4Z4 - UNF1/4	FT10PM	28	4,8	10	57	6	4
HPTMUNF5/16Z4 - UNF5/16	FT10PM	24	6	12,7	57	6	4
HPTMUNF7/16Z4 - UNF7/16	FT10PM	20	8	17,8	63	8	4
HPTMUNF9/16Z5 - UNF9/16	FT10PM	18	10	22,6	72	10	5
HPTMUNF3/4 - UNF3/4	FT10PM	16	14	28,6	83	14	5

Multi-Form Thread Mill - UNJF



- Solid Thread milling cutter with an integral shank that cuts on its periphery to produce a groove or a thread.
- Standard items listed.
- Choosable internal coolant. (Starts M4)
- Additional styles and coatings made-to-order.



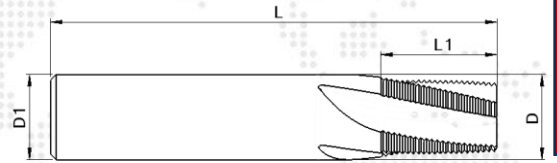
THREADMILL

Description	Grade	TPI	D	L1	L	D1	Z
HPTMUNJF10Z4 – UNJF10	FT10PM	32	3,6	7,9	57	6	4
HPTMUNJF1/4Z4 – UNJF1/4	FT10PM	28	4,8	10	57	6	4
HPTMUNJF5/16Z4 – UNJF5/16	FT10PM	24	6,2	12,7	63	8	4
HPTMUNJF3/8Z4 – UNJF3/8	FT10PM	24	8	14,8	63	8	4
HPTMUNJF7/16Z4 – UNJF7/16	FT10PM	20	9,2	17,8	72	10	4
HPTMUNJF1/2Z4 – UNJF1/2	FT10PM	20	10,5	19,1	83	12	4

Multi-Form Thread Mill - NPT



- Solid Thread milling cutter with an integral shank that cuts on its periphery to produce a groove or a thread.
- Standard items listed.
- Choosable internal coolant. (Starts M4)
- Additional styles and coatings made-to-order.



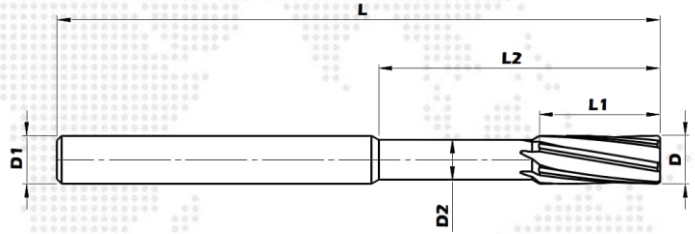
THREADMILL

Description	Grade	TPI	D	L1	L	D1	Z
HPTMNPT1/16Z4 – NPT1/16	FT10PM	27	5,5	11,5	57	6	4
HPTMNPT1/8Z4 – NPT1/8	FT10PM	27	7,9	11,5	63	8	4
HPTMNPT1/4-3/8Z4 – NPT1/4-3/8	FT10PM	18	9,9	15,92	72	10	4
HPTMNPT1/2-3/4Z4 – NPT1/2-3/4	FT10PM	14	15,9	20,46	92	16	5
HPTMNPT1-2Z4 – NPT1-2	FT10PM	11,5	19,9	27,12	104	20	6

Reamer – Spiral Flute



- Standard reamers listed are ground to achieve an H7 tolerance hole.
- For through hole.
- Right spiral flute. (For left, please add end of Description –L)
- Standard items listed.
- Choosable internal coolant.
- Additional styles –neck and coatings made-to-order.



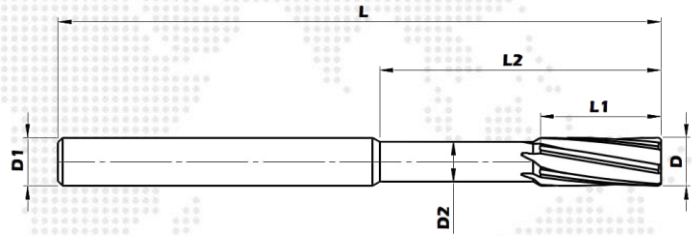
REAMER

Description	Grade	D	L1	L2	D2	L	D1	Z
HPR030002003506544	FP15PD	3	20	35	2,5	65	4	4
HPR031002003506544	FP15PD	3,1	20	35	2,6	65	4	4
HPR032002003506544	FP15PD	3,2	20	35	2,7	65	4	4
HPR033002003506544	FP15PD	3,3	20	35	2,8	65	4	4
HPR034002003506544	FP15PD	3,4	20	35	2,9	65	4	4
HPR035002003506544	FP15PD	3,5	20	35	3	65	4	4
HPR036002003506544	FP15PD	3,6	20	35	3,1	65	4	4
HPR037002003506544	FP15PD	3,7	20	35	3,2	65	4	4
HPR038002003506544	FP15PD	3,8	20	35	3,3	65	4	4
HPR039002003506544	FP15PD	3,9	20	35	3,4	65	4	4
HPR040002003506566	FP15PD	4	20	35	3,5	65	6	6
HPR041002504007566	FP15PD	4,1	25	40	3,6	75	6	6
HPR042002504007566	FP15PD	4,2	25	40	3,7	75	6	6
HPR043002504007566	FP15PD	4,3	25	40	3,8	75	6	6
HPR044002504007566	FP15PD	4,4	25	40	3,9	75	6	6
HPR045002504007566	FP15PD	4,5	25	40	4	75	6	6
HPR046002504007566	FP15PD	4,6	25	40	4,1	75	6	6
HPR047002504007566	FP15PD	4,7	25	40	4,2	75	6	6
HPR048002503506566	FP15PD	4,8	25	35	4,3	65	6	6
HPR049002503506566	FP15PD	4,9	25	35	4,4	65	6	6
HPR050002505007566	FP15PD	5	25	50	4,5	75	6	6
HPR051002505007566	FP15PD	5,1	25	50	4,6	75	6	6
HPR052002505007566	FP15PD	5,2	25	50	4,7	75	6	6
HPR053002505007566	FP15PD	5,3	25	50	4,8	75	6	6
HPR054002505007566	FP15PD	5,4	25	50	4,9	75	6	6
HPR055002505007566	FP15PD	5,5	25	50	5	75	6	6
HPR056002505007566	FP15PD	5,6	25	50	5,1	75	6	6
HPR057002505007566	FP15PD	5,7	25	50	5,2	75	6	6
HPR058002505007566	FP15PD	5,8	25	50	5,3	75	6	6
HPR059002505007566	FP15PD	5,9	25	50	5,4	75	6	6
HPR060003006510086	FP15PD	6	30	65	5	100	8	6
HPR061003006510086	FP15PD	6,1	30	65	5,1	100	8	6

Reamer – Spiral Flute



- Standard reamers listed are ground to achieve an H7 tolerance hole.
- For through hole.
- Right spiral flute. (For left, please add end of Description –L)
- Standard items listed.
- Choosable internal coolant.
- Additional styles –neck and coatings made-to-order.



REAMER

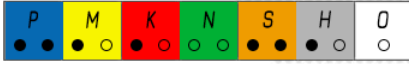
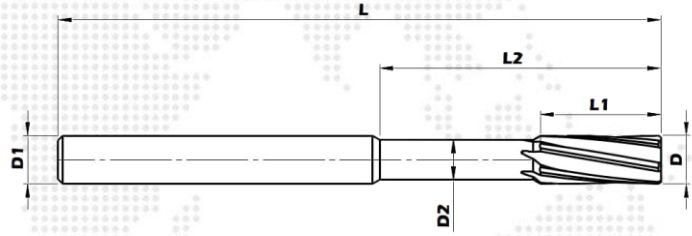


Description	Grade	D	L1	L2	D2	L	D1	Z
HPR066003006510086	FP15PD	6,2	30	65	5,2	100	8	6
HPR066003006510086	FP15PD	6,3	30	65	5,3	100	8	6
HPR066003006510086	FP15PD	6,4	30	65	5,4	100	8	6
HPR066003006510086	FP15PD	6,5	30	65	5,5	100	8	6
HPR066003006510086	FP15PD	6,6	30	65	5,6	100	8	6
HPR067003006510086	FP15PD	6,7	30	65	5,7	100	8	6
HPR068003006510086	FP15PD	6,8	30	65	5,8	100	8	6
HPR069003006510086	FP15PD	6,9	30	65	5,9	100	8	6
HPR070003507010986	FP15PD	7	35	70	6	109	8	6
HPR071003507010986	FP15PD	7,1	35	70	6,1	109	8	6
HPR072003507010986	FP15PD	7,2	35	70	6,2	109	8	6
HPR073003507010986	FP15PD	7,3	35	70	6,3	109	8	6
HPR074003507010986	FP15PD	7,4	35	70	6,4	109	8	6
HPR075003507010986	FP15PD	7,5	35	70	6,5	109	8	6
HPR076003507010986	FP15PD	7,6	35	70	6,6	109	8	6
HPR077003507010986	FP15PD	7,7	35	70	6,7	109	8	6
HPR078003507010986	FP15PD	7,8	35	70	6,8	109	8	6
HPR079003507010986	FP15PD	7,9	35	70	6,9	109	8	6
HPR0800035080120106	FP15PD	8	35	80	7	120	10	6
HPR0810035080120106	FP15PD	8,1	35	80	7,1	120	10	6
HPR0820035080120106	FP15PD	8,2	35	80	7,2	120	10	6
HPR0830035080120106	FP15PD	8,3	35	80	7,3	120	10	6
HPR0840035080120106	FP15PD	8,4	35	80	7,4	120	10	6
HPR0850035080120106	FP15PD	8,5	35	80	7,5	120	10	6
HPR0860035080120106	FP15PD	8,6	35	80	7,6	120	10	6
HPR0870035080120106	FP15PD	8,7	35	80	7,7	120	10	6
HPR0880035080120106	FP15PD	8,8	35	80	7,8	120	10	6
HPR0890035080120106	FP15PD	8,9	35	80	7,9	120	10	6
HPR0900040085125106	FP15PD	9	40	85	8	125	10	6
HPR0910040085125106	FP15PD	9,1	40	85	8,1	125	10	6
HPR0920040085125106	FP15PD	9,2	40	85	8,2	125	10	6
HPR0930040085125106	FP15PD	9,3	40	85	8,3	125	10	6

Reamer – Spiral Flute



- Standard reamers listed are ground to achieve an H7 tolerance hole.
- For through hole.
- Right spiral flute. (For left, please add end of Description –L)
- Standard items listed.
- Choosable internal coolant.
- Additional styles –neck and coatings made-to-order.



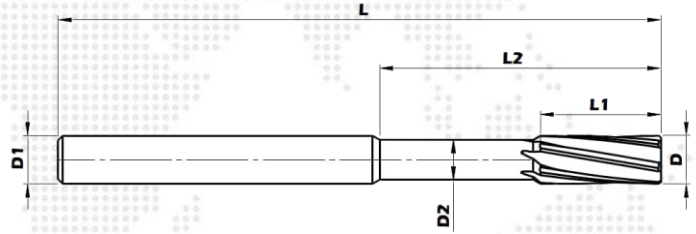
REAMER

Description	Grade	D	L1	L2	D2	L	D1	Z
HPR0940040085125106	FP15PD	9,4	40	85	8,4	125	10	6
HPR0950040085125106	FP15PD	9,5	40	85	8,5	125	10	6
HPR0960040085125106	FP15PD	9,6	40	85	8,6	125	10	6
HPR0970040085125106	FP15PD	9,7	40	85	8,7	125	10	6
HPR0980040085125106	FP15PD	9,8	40	85	8,8	125	10	6
HPR0990040085125106	FP15PD	9,9	40	85	8,9	125	10	6
HPR1000040085125126	FP15PD	10	40	85	9	125	12	6
HPR1010040085125126	FP15PD	10,1	40	85	9,1	125	12	6
HPR1020040085125126	FP15PD	10,2	40	85	9,2	125	12	6
HPR1030040085125126	FP15PD	10,3	40	85	9,3	125	12	6
HPR1040040085125126	FP15PD	10,4	40	85	9,4	125	12	6
HPR1050040085125126	FP15PD	10,5	40	85	9,5	125	12	6
HPR1060040085125126	FP15PD	10,6	40	85	9,6	125	12	6
HPR1070040085125126	FP15PD	10,7	40	85	9,7	125	12	6
HPR1080040085125126	FP15PD	10,8	40	85	9,8	125	12	6
HPR1090040085125126	FP15PD	10,9	40	85	9,9	125	12	6
HPR1100045100150126	FP15PD	11	45	100	10	150	12	6
HPR1110045100150126	FP15PD	11,1	45	100	10,1	150	12	6
HPR1120045100150126	FP15PD	11,2	45	100	10,2	150	12	6
HPR1130045100150126	FP15PD	11,3	45	100	10,3	150	12	6
HPR1140045100150126	FP15PD	11,4	45	100	10,4	150	12	6
HPR1150045100150126	FP15PD	11,5	45	100	10,5	150	12	6
HPR1160045100150126	FP15PD	11,6	45	100	10,6	150	12	6
HPR1170045100150126	FP15PD	11,7	45	100	10,7	150	12	6
HPR1180045100150126	FP15PD	11,8	45	100	10,8	150	12	6
HPR1190045100150126	FP15PD	11,9	45	100	10,9	150	12	6
HPR1200045100150146	FP15PD	12	45	100	11	150	14	6
HPR1210045100150146	FP15PD	12,1	45	100	11,1	150	14	6
HPR1220045100150146	FP15PD	12,2	45	100	11,2	150	14	6
HPR1230045100150146	FP15PD	12,3	45	100	11,3	150	14	6
HPR1240045100150146	FP15PD	12,4	45	100	11,4	150	14	6
HPR1250045100150146	FP15PD	12,5	45	100	11,5	150	14	6

Reamer – Spiral Flute



- Standard reamers listed are ground to achieve an H7 tolerance hole.
- For through hole.
- Right spiral flute. (For left, please add end of Description –L)
- Standard items listed.
- Choosable internal coolant.
- Additional styles –neck and coatings made-to-order.



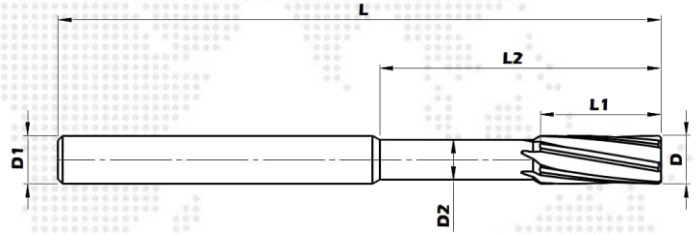
REAMER

Description	Grade	D	L1	L2	D2	L	D1	Z
HPR1260045100150146	FP15PD	12,6	45	100	11,6	150	14	6
HPR1270045100150146	FP15PD	12,7	45	100	11,7	150	14	6
HPR1280045100150146	FP15PD	12,8	45	100	11,8	150	14	6
HPR1290045100150146	FP15PD	12,9	45	100	11,9	150	14	6
HPR1300045100150146	FP15PD	13	45	100	12	150	14	6
HPR1310045100150146	FP15PD	13,1	45	100	12,1	150	14	6
HPR1320045100150146	FP15PD	13,2	45	100	12,2	150	14	6
HPR1330045100150146	FP15PD	13,3	45	100	12,3	150	14	6
HPR1340045100150146	FP15PD	13,4	45	100	12,4	150	14	6
HPR1350045100150146	FP15PD	13,5	45	100	12,5	150	14	6
HPR1360045100150146	FP15PD	13,6	45	100	12,6	150	14	6
HPR1370045100150146	FP15PD	13,7	45	100	12,7	150	14	6
HPR1380045100150146	FP15PD	13,8	45	100	12,8	150	14	6
HPR1390045100150146	FP15PD	13,9	45	100	12,9	150	14	6
HPR1400045100150166	FP15PD	14	45	100	13	150	16	6
HPR1410045100150166	FP15PD	14,1	45	100	13,1	150	16	6
HPR1420045100150166	FP15PD	14,2	45	100	13,2	150	16	6
HPR1430045100150166	FP15PD	14,3	45	100	13,3	150	16	6
HPR1440045100150166	FP15PD	14,4	45	100	13,4	150	16	6
HPR1450045100150166	FP15PD	14,5	45	100	13,5	150	16	6
HPR1460045100150166	FP15PD	14,6	45	100	13,6	150	16	6
HPR1470045100150166	FP15PD	14,7	45	100	13,7	150	16	6
HPR1480045100150166	FP15PD	14,8	45	100	13,8	150	16	6
HPR1490045100150166	FP15PD	14,9	45	100	13,9	150	16	6
HPR1500050110160168	FP15PD	15	50	110	14	160	16	8
HPR1510050110160168	FP15PD	15,1	50	110	14,1	160	16	8
HPR1520050110160168	FP15PD	15,2	50	110	14,2	160	16	8
HPR1530050110160168	FP15PD	15,3	50	110	14,3	160	16	8
HPR1540050110160168	FP15PD	15,4	50	110	14,4	160	16	8
HPR1550050110160168	FP15PD	15,5	50	110	14,5	160	16	8
HPR1560050110160168	FP15PD	15,6	50	110	14,6	160	16	8
HPR1570050110160168	FP15PD	15,7	50	110	14,7	160	16	8

Reamer – Spiral Flute



- Standard reamers listed are ground to achieve an H7 tolerance hole.
- For through hole.
- Right spiral flute. (For left, please add end of Description –L)
- Standard items listed.
- Choosable internal coolant.
- Additional styles –neck and coatings made-to-order.



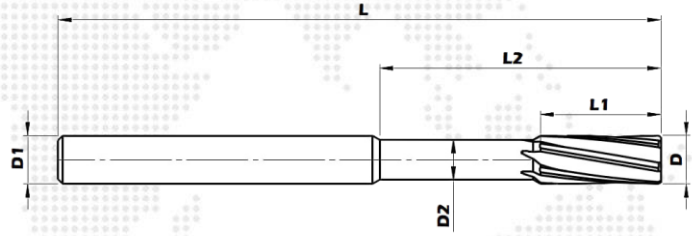
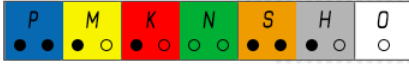
REAMER

Description	Grade	D	L1	L2	D2	L	D1	Z
HPR1580050110160168	FP15PD	15,8	50	110	14,8	160	16	8
HPR1590050110160168	FP15PD	15,9	50	110	14,9	160	16	8
HPR1600055115165188	FP15PD	16	55	115	15	165	18	8
HPR1610055115165188	FP15PD	16,1	55	115	15,1	165	18	8
HPR1620055115165188	FP15PD	16,2	55	115	15,2	165	18	8
HPR1630055115165188	FP15PD	16,3	55	115	15,3	165	18	8
HPR1640055115165188	FP15PD	16,4	55	115	15,4	165	18	8
HPR1650055115165188	FP15PD	16,5	55	115	15,5	165	18	8
HPR1660055115165188	FP15PD	16,6	55	115	15,6	165	18	8
HPR1670055115165188	FP15PD	16,7	55	115	15,7	165	18	8
HPR1680055115165188	FP15PD	16,8	55	115	15,8	165	18	8
HPR1690055115165188	FP15PD	16,9	55	115	15,9	165	18	8
HPR1700055115165188	FP15PD	17	55	115	16	165	18	8
HPR1710055115165188	FP15PD	17,1	55	115	16,1	165	18	8
HPR1720055115165188	FP15PD	17,2	55	115	16,2	165	18	8
HPR1730055115165188	FP15PD	17,3	55	115	16,3	165	18	8
HPR1740055115165188	FP15PD	17,4	55	115	16,4	165	18	8
HPR1750055115165188	FP15PD	17,5	55	115	16,5	165	18	8
HPR1760055115165188	FP15PD	17,6	55	115	16,6	165	18	8
HPR1770055115165188	FP15PD	17,7	55	115	16,7	165	18	8
HPR1780055115165188	FP15PD	17,8	55	115	16,8	165	18	8
HPR1790055115165188	FP15PD	17,9	55	115	16,9	165	18	8
HPR1800060130180208	FP15PD	18	60	130	17	180	20	8
HPR1810060130180208	FP15PD	18,1	60	130	17,1	180	20	8
HPR1820060130180208	FP15PD	18,2	60	130	17,2	180	20	8
HPR1830060130180208	FP15PD	18,3	60	130	17,3	180	20	8
HPR1840060130180208	FP15PD	18,4	60	130	17,4	180	20	8
HPR1850060130180208	FP15PD	18,5	60	130	17,5	180	20	8
HPR1860060130180208	FP15PD	18,6	60	130	17,6	180	20	8
HPR1870060130180208	FP15PD	18,7	60	130	17,7	180	20	8
HPR1880060130180208	FP15PD	18,8	60	130	17,8	180	20	8
HPR1890060130180208	FP15PD	18,9	60	130	17,9	180	20	8

Reamer – Spiral Flute



- Standard reamers listed are ground to achieve an H7 tolerance hole.
- For through hole.
- Right spiral flute. (For left, please add end of Description –L)
- Standard items listed.
- Choosable internal coolant.
- Additional styles –neck and coatings made-to-order.



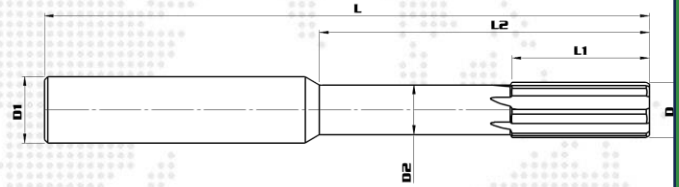
REAMER

Description	Grade	D	L1	L2	D2	L	D1	Z
HPR1900060130180208	FP15PD	19	60	130	18	180	20	8
HPR1910060130180208	FP15PD	19,1	60	130	18,1	180	20	8
HPR1920060145195208	FP15PD	19,2	60	145	18,2	195	20	8
HPR1930060145195208	FP15PD	19,3	60	145	18,3	195	20	8
HPR1940060145195208	FP15PD	19,4	60	145	18,4	195	20	8
HPR1950060145195208	FP15PD	19,5	60	145	18,5	195	20	8
HPR1960060145195208	FP15PD	19,6	60	145	18,6	195	20	8
HPR1970060145195208	FP15PD	19,7	60	145	18,7	195	20	8
HPR1980060145195208	FP15PD	19,8	60	145	18,8	195	20	8
HPR1990060145195208	FP15PD	19,9	60	145	18,9	195	20	8
HPR2000060145195228	FP15PD	20	60	145	19	195	22	8

Reamer – Straight Flute



- Standard reamers listed are ground to achieve an H7 tolerance hole.
- Standard items listed.
- Choosable internal coolant.
- Additional styles –neck and coatings made-to-order.



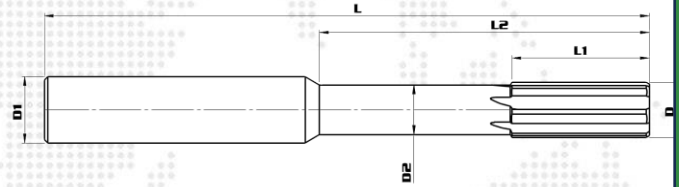
REAMER

Description	Grade	D	L1	L2	D2	L	D1	Z
HPRS030002003506544	FP15PD	3	20	35	2,5	65	4	4
HPRS031002003506544	FP15PD	3,1	20	35	2,6	65	4	4
HPRS032002003506544	FP15PD	3,2	20	35	2,7	65	4	4
HPRS033002003506544	FP15PD	3,3	20	35	2,8	65	4	4
HPRS034002003506544	FP15PD	3,4	20	35	2,9	65	4	4
HPRS035002003506544	FP15PD	3,5	20	35	3	65	4	4
HPRS036002003506544	FP15PD	3,6	20	35	3,1	65	4	4
HPRS037002003506544	FP15PD	3,7	20	35	3,2	65	4	4
HPRS038002003506544	FP15PD	3,8	20	35	3,3	65	4	4
HPRS039002003506544	FP15PD	3,9	20	35	3,4	65	4	4
HPRS040002003506566	FP15PD	4	20	35	3,5	65	6	6
HPRS041002504007566	FP15PD	4,1	25	40	3,6	75	6	6
HPRS042002504007566	FP15PD	4,2	25	40	3,7	75	6	6
HPRS043002504007566	FP15PD	4,3	25	40	3,8	75	6	6
HPRS044002504007566	FP15PD	4,4	25	40	3,9	75	6	6
HPRS045002504007566	FP15PD	4,5	25	40	4	75	6	6
HPRS046002504007566	FP15PD	4,6	25	40	4,1	75	6	6
HPRS047002504007566	FP15PD	4,7	25	40	4,2	75	6	6
HPRS048002503506566	FP15PD	4,8	25	35	4,3	65	6	6
HPRS049002503506566	FP15PD	4,9	25	35	4,4	65	6	6
HPRS050002505007566	FP15PD	5	25	50	4,5	75	6	6
HPRS051002505007566	FP15PD	5,1	25	50	4,6	75	6	6
HPRS052002505007566	FP15PD	5,2	25	50	4,7	75	6	6
HPRS053002505007566	FP15PD	5,3	25	50	4,8	75	6	6
HPRS054002505007566	FP15PD	5,4	25	50	4,9	75	6	6
HPRS055002505007566	FP15PD	5,5	25	50	5	75	6	6
HPRS056002505007566	FP15PD	5,6	25	50	5,1	75	6	6
HPRS057002505007566	FP15PD	5,7	25	50	5,2	75	6	6
HPRS058002505007566	FP15PD	5,8	25	50	5,3	75	6	6
HPRS059002505007566	FP15PD	5,9	25	50	5,4	75	6	6
HPRS060003006510086	FP15PD	6	30	65	5	100	8	6
HPRS061003006510086	FP15PD	6,1	30	65	5,1	100	8	6

Reamer – Straight Flute



- Standard reamers listed are ground to achieve an H7 tolerance hole.
- Standard items listed.
- Choosable internal coolant.
- Additional styles –neck and coatings made-to-order.



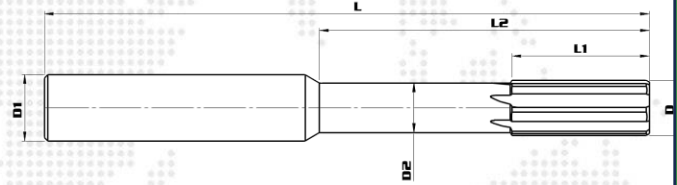
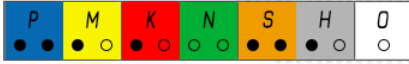
REAMER

Description	Grade	D	L1	L2	D2	L	D1	Z
HPRS062003006510086	FP15PD	6,2	30	65	5,2	100	8	6
HPRS063003006510086	FP15PD	6,3	30	65	5,3	100	8	6
HPRS064003006510086	FP15PD	6,4	30	65	5,4	100	8	6
HPRS065003006510086	FP15PD	6,5	30	65	5,5	100	8	6
HPRS066003006510086	FP15PD	6,6	30	65	5,6	100	8	6
HPRS067003006510086	FP15PD	6,7	30	65	5,7	100	8	6
HPRS068003006510086	FP15PD	6,8	30	65	5,8	100	8	6
HPRS069003006510086	FP15PD	6,9	30	65	5,9	100	8	6
HPRS070003507010986	FP15PD	7	35	70	6	109	8	6
HPRS071003507010986	FP15PD	7,1	35	70	6,1	109	8	6
HPRS072003507010986	FP15PD	7,2	35	70	6,2	109	8	6
HPRS073003507010986	FP15PD	7,3	35	70	6,3	109	8	6
HPRS074003507010986	FP15PD	7,4	35	70	6,4	109	8	6
HPRS075003507010986	FP15PD	7,5	35	70	6,5	109	8	6
HPRS076003507010986	FP15PD	7,6	35	70	6,6	109	8	6
HPRS077003507010986	FP15PD	7,7	35	70	6,7	109	8	6
HPRS078003507010986	FP15PD	7,8	35	70	6,8	109	8	6
HPRS079003507010986	FP15PD	7,9	35	70	6,9	109	8	6
HPRS0800035080120106	FP15PD	8	35	80	7	120	10	6
HPRS0810035080120106	FP15PD	8,1	35	80	7,1	120	10	6
HPRS0820035080120106	FP15PD	8,2	35	80	7,2	120	10	6
HPRS0830035080120106	FP15PD	8,3	35	80	7,3	120	10	6
HPRS0840035080120106	FP15PD	8,4	35	80	7,4	120	10	6
HPRS0850035080120106	FP15PD	8,5	35	80	7,5	120	10	6
HPRS0860035080120106	FP15PD	8,6	35	80	7,6	120	10	6
HPRS0870035080120106	FP15PD	8,7	35	80	7,7	120	10	6
HPRS0880035080120106	FP15PD	8,8	35	80	7,8	120	10	6
HPRS0890035080120106	FP15PD	8,9	35	80	7,9	120	10	6
HPRS0900040085125106	FP15PD	9	40	85	8	125	10	6
HPRS0910040085125106	FP15PD	9,1	40	85	8,1	125	10	6
HPRS0920040085125106	FP15PD	9,2	40	85	8,2	125	10	6
HPRS0930040085125106	FP15PD	9,3	40	85	8,3	125	10	6

Reamer – Straight Flute



- Standard reamers listed are ground to achieve an H7 tolerance hole.
- Standard items listed.
- Choosable internal coolant.
- Additional styles –neck and coatings made-to-order.



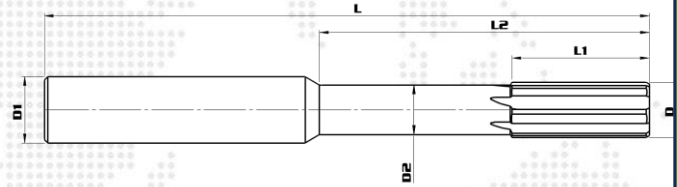
REAMER

Description	Grade	D	L1	L2	D2	L	D1	Z
HPRS0940040085125106	FP15PD	9,4	40	85	8,4	125	10	6
HPRS0950040085125106	FP15PD	9,5	40	85	8,5	125	10	6
HPRS0960040085125106	FP15PD	9,6	40	85	8,6	125	10	6
HPRS0970040085125106	FP15PD	9,7	40	85	8,7	125	10	6
HPRS0980040085125106	FP15PD	9,8	40	85	8,8	125	10	6
HPRS0990040085125106	FP15PD	9,9	40	85	8,9	125	10	6
HPRS1000040085125126	FP15PD	10	40	85	9	125	12	6
HPRS1010040085125126	FP15PD	10,1	40	85	9,1	125	12	6
HPRS1020040085125126	FP15PD	10,2	40	85	9,2	125	12	6
HPRS1030040085125126	FP15PD	10,3	40	85	9,3	125	12	6
HPRS1040040085125126	FP15PD	10,4	40	85	9,4	125	12	6
HPRS1050040085125126	FP15PD	10,5	40	85	9,5	125	12	6
HPRS1060040085125126	FP15PD	10,6	40	85	9,6	125	12	6
HPRS1070040085125126	FP15PD	10,7	40	85	9,7	125	12	6
HPRS1080040085125126	FP15PD	10,8	40	85	9,8	125	12	6
HPRS1090040085125126	FP15PD	10,9	40	85	9,9	125	12	6
HPRS1100045100150126	FP15PD	11	45	100	10	150	12	6
HPRS1110045100150126	FP15PD	11,1	45	100	10,1	150	12	6
HPRS1120045100150126	FP15PD	11,2	45	100	10,2	150	12	6
HPRS1130045100150126	FP15PD	11,3	45	100	10,3	150	12	6
HPRS1140045100150126	FP15PD	11,4	45	100	10,4	150	12	6
HPRS1150045100150126	FP15PD	11,5	45	100	10,5	150	12	6
HPRS1160045100150126	FP15PD	11,6	45	100	10,6	150	12	6
HPRS1170045100150126	FP15PD	11,7	45	100	10,7	150	12	6
HPRS1180045100150126	FP15PD	11,8	45	100	10,8	150	12	6
HPRS1190045100150126	FP15PD	11,9	45	100	10,9	150	12	6
HPRS1200045100150146	FP15PD	12	45	100	11	150	14	6
HPRS1210045100150146	FP15PD	12,1	45	100	11,1	150	14	6
HPRS1220045100150146	FP15PD	12,2	45	100	11,2	150	14	6
HPRS1230045100150146	FP15PD	12,3	45	100	11,3	150	14	6
HPRS1240045100150146	FP15PD	12,4	45	100	11,4	150	14	6
HPRS1250045100150146	FP15PD	12,5	45	100	11,5	150	14	6

Reamer – Straight Flute



- Standard reamers listed are ground to achieve an H7 tolerance hole.
- Standard items listed.
- Choosable internal coolant.
- Additional styles –neck and coatings made-to-order.



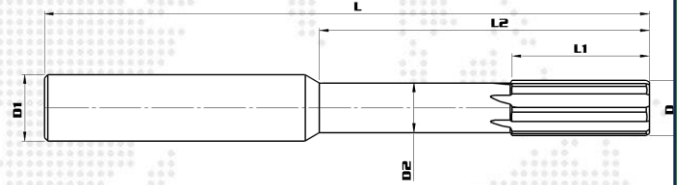
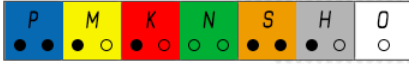
REAMER

Description	Grade	D	L1	L2	D2	L	D1	Z
HPRS1260045100150146	FP15PD	12,6	45	100	11,6	150	14	6
HPRS1270045100150146	FP15PD	12,7	45	100	11,7	150	14	6
HPRS1280045100150146	FP15PD	12,8	45	100	11,8	150	14	6
HPRS1290045100150146	FP15PD	12,9	45	100	11,9	150	14	6
HPRS1300045100150146	FP15PD	13	45	100	12	150	14	6
HPRS1310045100150146	FP15PD	13,1	45	100	12,1	150	14	6
HPRS1320045100150146	FP15PD	13,2	45	100	12,2	150	14	6
HPRS1330045100150146	FP15PD	13,3	45	100	12,3	150	14	6
HPRS1340045100150146	FP15PD	13,4	45	100	12,4	150	14	6
HPRS1350045100150146	FP15PD	13,5	45	100	12,5	150	14	6
HPRS1360045100150146	FP15PD	13,6	45	100	12,6	150	14	6
HPRS1370045100150146	FP15PD	13,7	45	100	12,7	150	14	6
HPRS1380045100150146	FP15PD	13,8	45	100	12,8	150	14	6
HPRS1390045100150146	FP15PD	13,9	45	100	12,9	150	14	6
HPRS1400045100150166	FP15PD	14	45	100	13	150	16	6
HPRS1410045100150166	FP15PD	14,1	45	100	13,1	150	16	6
HPRS1420045100150166	FP15PD	14,2	45	100	13,2	150	16	6
HPRS1430045100150166	FP15PD	14,3	45	100	13,3	150	16	6
HPRS1440045100150166	FP15PD	14,4	45	100	13,4	150	16	6
HPRS1450045100150166	FP15PD	14,5	45	100	13,5	150	16	6
HPRS1460045100150166	FP15PD	14,6	45	100	13,6	150	16	6
HPRS1470045100150166	FP15PD	14,7	45	100	13,7	150	16	6
HPRS1480045100150166	FP15PD	14,8	45	100	13,8	150	16	6
HPRS1490045100150166	FP15PD	14,9	45	100	13,9	150	16	6
HPRS1500050110160168	FP15PD	15	50	110	14	160	16	8
HPRS1510050110160168	FP15PD	15,1	50	110	14,1	160	16	8
HPRS1520050110160168	FP15PD	15,2	50	110	14,2	160	16	8
HPRS1530050110160168	FP15PD	15,3	50	110	14,3	160	16	8
HPRS1540050110160168	FP15PD	15,4	50	110	14,4	160	16	8
HPRS1550050110160168	FP15PD	15,5	50	110	14,5	160	16	8
HPRS1560050110160168	FP15PD	15,6	50	110	14,6	160	16	8
HPRS1570050110160168	FP15PD	15,7	50	110	14,7	160	16	8

Reamer – Straight Flute



- Standard reamers listed are ground to achieve an H7 tolerance hole.
- Standard items listed.
- Choosable internal coolant.
- Additional styles –neck and coatings made-to-order.



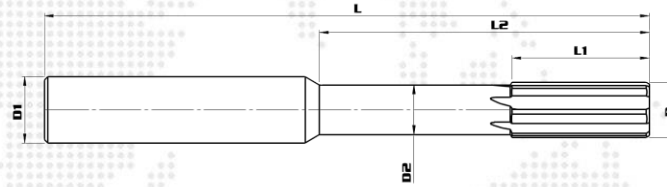
REAMER

Description	Grade	D	L1	L2	D2	L	D1	Z
HPRS1580050110160168	FP15PD	15,8	50	110	14,8	160	16	8
HPRS1590050110160168	FP15PD	15,9	50	110	14,9	160	16	8
HPRS1600055115165188	FP15PD	16	55	115	15	165	18	8
HPRS1610055115165188	FP15PD	16,1	55	115	15,1	165	18	8
HPRS1620055115165188	FP15PD	16,2	55	115	15,2	165	18	8
HPRS1630055115165188	FP15PD	16,3	55	115	15,3	165	18	8
HPRS1640055115165188	FP15PD	16,4	55	115	15,4	165	18	8
HPRS1650055115165188	FP15PD	16,5	55	115	15,5	165	18	8
HPRS1660055115165188	FP15PD	16,6	55	115	15,6	165	18	8
HPRS1670055115165188	FP15PD	16,7	55	115	15,7	165	18	8
HPRS1680055115165188	FP15PD	16,8	55	115	15,8	165	18	8
HPRS1690055115165188	FP15PD	16,9	55	115	15,9	165	18	8
HPRS1700055115165188	FP15PD	17	55	115	16	165	18	8
HPRS1710055115165188	FP15PD	17,1	55	115	16,1	165	18	8
HPRS1720055115165188	FP15PD	17,2	55	115	16,2	165	18	8
HPRS1730055115165188	FP15PD	17,3	55	115	16,3	165	18	8
HPRS1740055115165188	FP15PD	17,4	55	115	16,4	165	18	8
HPRS1750055115165188	FP15PD	17,5	55	115	16,5	165	18	8
HPRS1760055115165188	FP15PD	17,6	55	115	16,6	165	18	8
HPRS1770055115165188	FP15PD	17,7	55	115	16,7	165	18	8
HPRS1780055115165188	FP15PD	17,8	55	115	16,8	165	18	8
HPRS1790055115165188	FP15PD	17,9	55	115	16,9	165	18	8
HPRS1800060130180208	FP15PD	18	60	130	17	180	20	8
HPRS1810060130180208	FP15PD	18,1	60	130	17,1	180	20	8
HPRS1820060130180208	FP15PD	18,2	60	130	17,2	180	20	8
HPRS1830060130180208	FP15PD	18,3	60	130	17,3	180	20	8
HPRS1840060130180208	FP15PD	18,4	60	130	17,4	180	20	8
HPRS1850060130180208	FP15PD	18,5	60	130	17,5	180	20	8
HPRS1860060130180208	FP15PD	18,6	60	130	17,6	180	20	8
HPRS1870060130180208	FP15PD	18,7	60	130	17,7	180	20	8
HPRS1880060130180208	FP15PD	18,8	60	130	17,8	180	20	8
HPRS1890060130180208	FP15PD	18,9	60	130	17,9	180	20	8

Reamer – Straight Flute



- Standard reamers listed are ground to achieve an H7 tolerance hole.
- Standard items listed.
- Choosable internal coolant.
- Additional styles –neck and coatings made-to-order.



REAMER

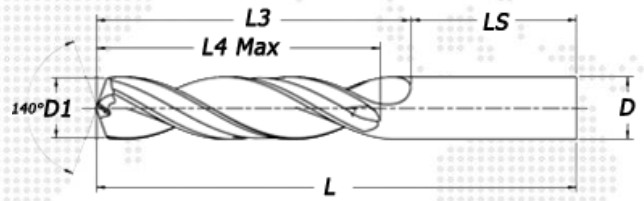
Description	Grade	D	L1	L2	D2	L	D1	Z
HPRS1900060130180208	FP15PD	19	60	130	18	180	20	8
HPRS1910060130180208	FP15PD	19,1	60	130	18,1	180	20	8
HPRS1920060145195208	FP15PD	19,2	60	145	18,2	195	20	8
HPRS1930060145195208	FP15PD	19,3	60	145	18,3	195	20	8
HPRS1940060145195208	FP15PD	19,4	60	145	18,4	195	20	8
HPRS1950060145195208	FP15PD	19,5	60	145	18,5	195	20	8
HPRS1960060145195208	FP15PD	19,6	60	145	18,6	195	20	8
HPRS1970060145195208	FP15PD	19,7	60	145	18,7	195	20	8
HPRS1980060145195208	FP15PD	19,8	60	145	18,8	195	20	8
HPRS1990060145195208	FP15PD	19,9	60	145	18,9	195	20	8
HPRS2000060145195228	FP15PD	20	60	145	19	195	22	8

High Performance Drill - 3xD

103A – External Coolant

104A – Internal Coolant

- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7 - suitable as pilot for deep hole drills.
- Additional styles and coatings made-to-order.



DRILL

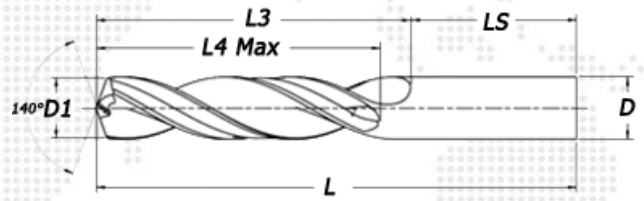
Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD103A02000	FP20PD	2	10	13	55	38	4
HPD104A02000	FP20PD	2	10	13	55	38	4
HPD103A02100	FP20PD	2,1	10	13	55	38	4
HPD104A02100	FP20PD	2,1	10	13	55	38	4
HPD103A02200	FP20PD	2,2	10	13	55	38	4
HPD104A02200	FP20PD	2,2	10	13	55	38	4
HPD103A02300	FP20PD	2,3	10	13	55	38	4
HPD104A02300	FP20PD	2,3	10	13	55	38	4
HPD103A02400	FP20PD	2,4	12	17	55	35	4
HPD104A02400	FP20PD	2,4	12	17	55	35	4
HPD103A02500	FP20PD	2,5	12	17	55	35	4
HPD104A02500	FP20PD	2,5	12	17	55	35	4
HPD103A02600	FP20PD	2,6	12	17	55	35	4
HPD104A02600	FP20PD	2,6	12	17	55	35	4
HPD103A02700	FP20PD	2,7	12	17	55	35	4
HPD104A02700	FP20PD	2,7	12	17	55	35	4
HPD103A02800	FP20PD	2,8	12	17	55	35	4
HPD104A02800	FP20PD	2,8	12	17	55	35	4
HPD103A02900	FP20PD	2,9	12	17	55	35	4
HPD104A02900	FP20PD	2,9	12	17	55	35	4

High Performance Drill - 3xD

103A – External Coolant

104A – Internal Coolant

- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7 - suitable as pilot for deep hole drills.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD103A03000	FP20PD	3	14	20	62	36	6
HPD104A03000	FP20PD	3	14	20	62	36	6
HPD103A03100	FP20PD	3,1	14	20	62	36	6
HPD104A03100	FP20PD	3,1	14	20	62	36	6
HPD103A03200	FP20PD	3,2	14	20	62	36	6
HPD104A03200	FP20PD	3,2	14	20	62	36	6
HPD103A03300	FP20PD	3,3	14	20	62	36	6
HPD104A03300	FP20PD	3,3	14	20	62	36	6
HPD103A03400	FP20PD	3,4	14	20	62	36	6
HPD104A03400	FP20PD	3,4	14	20	62	36	6
HPD103A03500	FP20PD	3,5	14	20	62	36	6
HPD104A03500	FP20PD	3,5	14	20	62	36	6
HPD103A03600	FP20PD	3,6	14	20	62	36	6
HPD104A03600	FP20PD	3,6	14	20	62	36	6
HPD103A03700	FP20PD	3,7	14	20	62	36	6
HPD104A03700	FP20PD	3,7	14	20	62	36	6
HPD103A03800	FP20PD	3,8	17	24	66	36	6
HPD104A03800	FP20PD	3,8	17	24	66	36	6
HPD103A03900	FP20PD	3,9	17	24	66	36	6
HPD104A03900	FP20PD	3,9	17	24	66	36	6
HPD103A04000	FP20PD	4	17	24	66	36	6
HPD104A04000	FP20PD	4	17	24	66	36	6
HPD103A04100	FP20PD	4,1	17	24	66	36	6
HPD104A04100	FP20PD	4,1	17	24	66	36	6
HPD103A04200	FP20PD	4,2	17	24	66	36	6
HPD104A04200	FP20PD	4,2	17	24	66	36	6
HPD103A04300	FP20PD	4,3	17	24	66	36	6
HPD104A04300	FP20PD	4,3	17	24	66	36	6
HPD103A04400	FP20PD	4,4	17	24	66	36	6
HPD104A04400	FP20PD	4,4	17	24	66	36	6
HPD103A04500	FP20PD	4,5	17	24	66	36	6
HPD104A04500	FP20PD	4,5	17	24	66	36	6

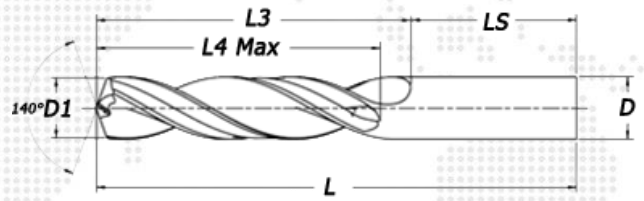
High Performance Drill - 3xD

FORNAX
Cutting Tools

103A – External Coolant

104A – Internal Coolant

- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7 - suitable as pilot for deep hole drills.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD103A04600	FP20PD	4,6	17	24	66	36	6
HPD104A04600	FP20PD	4,6	17	24	66	36	6
HPD103A04700	FP20PD	4,7	17	24	66	36	6
HPD104A04700	FP20PD	4,7	17	24	66	36	6
HPD103A04800	FP20PD	4,8	20	28	66	36	6
HPD104A04800	FP20PD	4,8	20	28	66	36	6
HPD103A04900	FP20PD	4,9	20	28	66	36	6
HPD104A04900	FP20PD	4,9	20	28	66	36	6
HPD103A05000	FP20PD	5	20	28	66	36	6
HPD104A05000	FP20PD	5	20	28	66	36	6
HPD103A05100	FP20PD	5,1	20	28	66	36	6
HPD104A05100	FP20PD	5,1	20	28	66	36	6
HPD103A05200	FP20PD	5,2	20	28	66	36	6
HPD104A05200	FP20PD	5,2	20	28	66	36	6
HPD103A05300	FP20PD	5,3	20	28	66	36	6
HPD104A05300	FP20PD	5,3	20	28	66	36	6
HPD103A05400	FP20PD	5,4	20	28	66	36	6
HPD104A05400	FP20PD	5,4	20	28	66	36	6
HPD103A05500	FP20PD	5,5	20	28	66	36	6
HPD104A05500	FP20PD	5,5	20	28	66	36	6
HPD103A05600	FP20PD	5,6	20	28	66	36	6
HPD104A05600	FP20PD	5,6	20	28	66	36	6
HPD103A05700	FP20PD	5,7	20	28	66	36	6
HPD104A05700	FP20PD	5,7	20	28	66	36	6
HPD103A05800	FP20PD	5,8	20	28	66	36	6
HPD104A05800	FP20PD	5,8	20	28	66	36	6
HPD103A05900	FP20PD	5,9	20	28	66	36	6
HPD104A05900	FP20PD	5,9	20	28	66	36	6
HPD103A06000	FP20PD	6	20	28	66	36	6
HPD104A06000	FP20PD	6	20	28	66	36	6
HPD103A06100	FP20PD	6,1	24	34	79	36	8
HPD104A06100	FP20PD	6,1	24	34	79	36	8

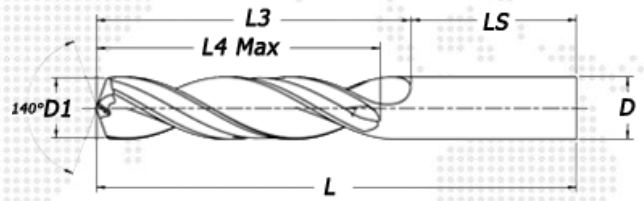
High Performance Drill - 3xD

FORNAX
Cutting Tools

103A – External Coolant

104A – Internal Coolant

- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7 - suitable as pilot for deep hole drills.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD103A06200	FP20PD	6,2	24	34	79	36	8
HPD104A06200	FP20PD	6,2	24	34	79	36	8
HPD103A06300	FP20PD	6,3	24	34	79	36	8
HPD104A06300	FP20PD	6,3	24	34	79	36	8
HPD103A06400	FP20PD	6,4	24	34	79	36	8
HPD104A06400	FP20PD	6,4	24	34	79	36	8
HPD103A06500	FP20PD	6,5	24	34	79	36	8
HPD104A06500	FP20PD	6,5	24	34	79	36	8
HPD103A06600	FP20PD	6,6	24	34	79	36	8
HPD104A06600	FP20PD	6,6	24	34	79	36	8
HPD103A06700	FP20PD	6,7	24	34	79	36	8
HPD104A06700	FP20PD	6,7	24	34	79	36	8
HPD103A06800	FP20PD	6,8	24	34	79	36	8
HPD104A06800	FP20PD	6,8	24	34	79	36	8
HPD103A06900	FP20PD	6,9	24	34	79	36	8
HPD104A06900	FP20PD	6,9	24	34	79	36	8
HPD103A07000	FP20PD	7	24	34	79	36	8
HPD104A07000	FP20PD	7	24	34	79	36	8
HPD103A07100	FP20PD	7,1	29	41	79	36	8
HPD104A07100	FP20PD	7,1	29	41	79	36	8
HPD103A07200	FP20PD	7,2	29	41	79	36	8
HPD104A07200	FP20PD	7,2	29	41	79	36	8
HPD103A07300	FP20PD	7,3	29	41	79	36	8
HPD104A07300	FP20PD	7,3	29	41	79	36	8
HPD103A07400	FP20PD	7,4	29	41	79	36	8
HPD104A07400	FP20PD	7,4	29	41	79	36	8
HPD103A07500	FP20PD	7,5	29	41	79	36	8
HPD104A07500	FP20PD	7,5	29	41	79	36	8
HPD103A07600	FP20PD	7,6	29	41	79	36	8
HPD104A07600	FP20PD	7,6	29	41	79	36	8
HPD103A07700	FP20PD	7,7	29	41	79	36	8
HPD104A07700	FP20PD	7,7	29	41	79	36	8

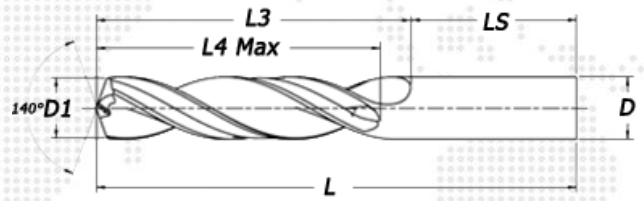
High Performance Drill - 3xD

FORNAX
Cutting Tools

103A – External Coolant

104A – Internal Coolant

- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7 - suitable as pilot for deep hole drills.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD103A07800	FP20PD	7,8	29	41	79	36	8
HPD104A07800	FP20PD	7,8	29	41	79	36	8
HPD103A07900	FP20PD	7,9	29	41	79	36	8
HPD104A07900	FP20PD	7,9	29	41	79	36	8
HPD103A08000	FP20PD	8	29	41	79	36	8
HPD104A08000	FP20PD	8	29	41	79	36	8
HPD103A08100	FP20PD	8,1	35	47	89	40	10
HPD104A08100	FP20PD	8,1	35	47	89	40	10
HPD103A08200	FP20PD	8,2	35	47	89	40	10
HPD104A08200	FP20PD	8,2	35	47	89	40	10
HPD103A08300	FP20PD	8,3	35	47	89	40	10
HPD104A08300	FP20PD	8,3	35	47	89	40	10
HPD103A08400	FP20PD	8,4	35	47	89	40	10
HPD104A08400	FP20PD	8,4	35	47	89	40	10
HPD103A08500	FP20PD	8,5	35	47	89	40	10
HPD104A08500	FP20PD	8,5	35	47	89	40	10
HPD103A08600	FP20PD	8,6	35	47	89	40	10
HPD104A08600	FP20PD	8,6	35	47	89	40	10
HPD103A08700	FP20PD	8,7	35	47	89	40	10
HPD104A08700	FP20PD	8,7	35	47	89	40	10
HPD103A08800	FP20PD	8,8	35	47	89	40	10
HPD104A08800	FP20PD	8,8	35	47	89	40	10
HPD103A08900	FP20PD	8,9	35	47	89	40	10
HPD104A08900	FP20PD	8,9	35	47	89	40	10
HPD103A09000	FP20PD	9	35	47	89	40	10
HPD104A09000	FP20PD	9	35	47	89	40	10
HPD103A09100	FP20PD	9,1	35	47	89	40	10
HPD104A09100	FP20PD	9,1	35	47	89	40	10
HPD103A09200	FP20PD	9,2	35	47	89	40	10
HPD104A09200	FP20PD	9,2	35	47	89	40	10
HPD103A09300	FP20PD	9,3	35	47	89	40	10
HPD104A09300	FP20PD	9,3	35	47	89	40	10

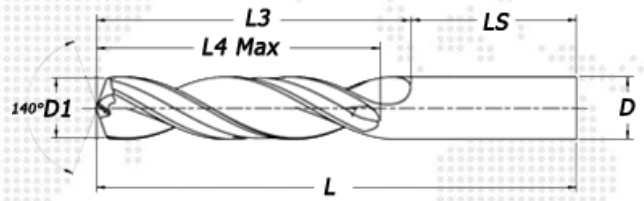
High Performance Drill - 3xD

FORNAX
Cutting Tools

103A – External Coolant

104A – Internal Coolant

- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7 - suitable as pilot for deep hole drills.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD103A09400	FP20PD	9,4	35	47	89	40	10
HPD104A09400	FP20PD	9,4	35	47	89	40	10
HPD103A09500	FP20PD	9,5	35	47	89	40	10
HPD104A09500	FP20PD	9,5	35	47	89	40	10
HPD103A09600	FP20PD	9,6	35	47	89	40	10
HPD104A09600	FP20PD	9,6	35	47	89	40	10
HPD103A09700	FP20PD	9,7	35	47	89	40	10
HPD104A09700	FP20PD	9,7	35	47	89	40	10
HPD103A09800	FP20PD	9,8	35	47	89	40	10
HPD104A09800	FP20PD	9,8	35	47	89	40	10
HPD103A09900	FP20PD	9,9	35	47	89	40	10
HPD104A09900	FP20PD	9,9	35	47	89	40	10
HPD103A10000	FP20PD	10	35	47	89	40	10
HPD104A10000	FP20PD	10	35	47	89	40	10
HPD103A10100	FP20PD	10,1	40	55	102	45	12
HPD104A10100	FP20PD	10,1	40	55	102	45	12
HPD103A10200	FP20PD	10,2	40	55	102	45	12
HPD104A10200	FP20PD	10,2	40	55	102	45	12
HPD103A10300	FP20PD	10,3	40	55	102	45	12
HPD104A10300	FP20PD	10,3	40	55	102	45	12
HPD103A10400	FP20PD	10,4	40	55	102	45	12
HPD104A10400	FP20PD	10,4	40	55	102	45	12
HPD103A10500	FP20PD	10,5	40	55	102	45	12
HPD104A10500	FP20PD	10,5	40	55	102	45	12
HPD103A10600	FP20PD	10,6	40	55	102	45	12
HPD104A10600	FP20PD	10,6	40	55	102	45	12
HPD103A10700	FP20PD	10,7	40	55	102	45	12
HPD104A10700	FP20PD	10,7	40	55	102	45	12
HPD103A10800	FP20PD	10,8	40	55	102	45	12
HPD104A10800	FP20PD	10,8	40	55	102	45	12
HPD103A10900	FP20PD	10,9	40	55	102	45	12
HPD104A10900	FP20PD	10,9	40	55	102	45	12

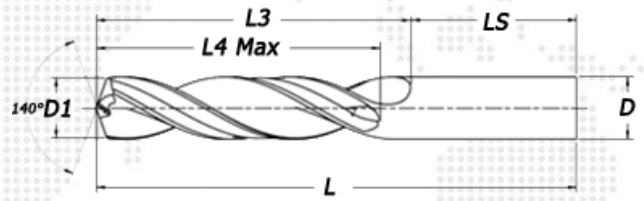
High Performance Drill - 3xD

FORNAX
Cutting Tools

103A – External Coolant

104A – Internal Coolant

- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7 - suitable as pilot for deep hole drills.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD103A11000	FP20PD	11	40	55	102	45	12
HPD104A11000	FP20PD	11	40	55	102	45	12
HPD103A11100	FP20PD	11,1	40	55	102	45	12
HPD104A11100	FP20PD	11,1	40	55	102	45	12
HPD103A11200	FP20PD	11,2	40	55	102	45	12
HPD104A11200	FP20PD	11,2	40	55	102	45	12
HPD103A11300	FP20PD	11,3	40	55	102	45	12
HPD104A11300	FP20PD	11,3	40	55	102	45	12
HPD103A11400	FP20PD	11,4	40	55	102	45	12
HPD104A11400	FP20PD	11,4	40	55	102	45	12
HPD103A11500	FP20PD	11,5	40	55	102	45	12
HPD104A11500	FP20PD	11,5	40	55	102	45	12
HPD103A11600	FP20PD	11,6	40	55	102	45	12
HPD104A11600	FP20PD	11,6	40	55	102	45	12
HPD103A11700	FP20PD	11,7	40	55	102	45	12
HPD104A11700	FP20PD	11,7	40	55	102	45	12
HPD103A11800	FP20PD	11,8	40	55	102	45	12
HPD104A11800	FP20PD	11,8	40	55	102	45	12
HPD103A11900	FP20PD	11,9	40	55	102	45	12
HPD104A11900	FP20PD	11,9	40	55	102	45	12
HPD103A12000	FP20PD	12	40	55	102	45	12
HPD104A12000	FP20PD	12	40	55	102	45	12
HPD103A12100	FP20PD	12,1	43	60	107	45	14
HPD104A12100	FP20PD	12,1	43	60	107	45	14
HPD103A12200	FP20PD	12,2	43	60	107	45	14
HPD104A12200	FP20PD	12,2	43	60	107	45	14
HPD103A12300	FP20PD	12,3	43	60	107	45	14
HPD104A12300	FP20PD	12,3	43	60	107	45	14
HPD103A12400	FP20PD	12,4	43	60	107	45	14
HPD104A12400	FP20PD	12,4	43	60	107	45	14
HPD103A12500	FP20PD	12,5	43	60	107	45	14
HPD104A12500	FP20PD	12,5	43	60	107	45	14

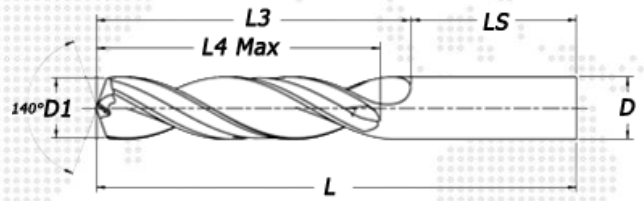
High Performance Drill - 3xD

FORNAX
Cutting Tools

103A – External Coolant

104A – Internal Coolant

- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7 - suitable as pilot for deep hole drills.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	L5	D1
HPD103A12600	FP20PD	12,6	43	60	107	45	14
HPD104A12600	FP20PD	12,6	43	60	107	45	14
HPD103A12700	FP20PD	12,7	43	60	107	45	14
HPD104A12700	FP20PD	12,7	43	60	107	45	14
HPD103A12800	FP20PD	12,8	43	60	107	45	14
HPD104A12800	FP20PD	12,8	43	60	107	45	14
HPD103A12900	FP20PD	12,9	43	60	107	45	14
HPD104A12900	FP20PD	12,9	43	60	107	45	14
HPD103A13000	FP20PD	13	43	60	107	45	14
HPD104A13000	FP20PD	13	43	60	107	45	14
HPD103A13100	FP20PD	13,1	43	60	107	45	14
HPD104A13100	FP20PD	13,1	43	60	107	45	14
HPD103A13200	FP20PD	13,2	43	60	107	45	14
HPD104A13200	FP20PD	13,2	43	60	107	45	14
HPD103A13300	FP20PD	13,3	43	60	107	45	14
HPD104A13300	FP20PD	13,3	43	60	107	45	14
HPD103A13400	FP20PD	13,4	43	60	107	45	14
HPD104A13400	FP20PD	13,4	43	60	107	45	14
HPD103A13500	FP20PD	13,5	43	60	107	45	14
HPD104A13500	FP20PD	13,5	43	60	107	45	14
HPD103A13600	FP20PD	13,6	43	60	107	45	14
HPD104A13600	FP20PD	13,6	43	60	107	45	14
HPD103A13700	FP20PD	13,7	43	60	107	45	14
HPD104A13700	FP20PD	13,7	43	60	107	45	14
HPD103A13800	FP20PD	13,8	43	60	107	45	14
HPD104A13800	FP20PD	13,8	43	60	107	45	14
HPD103A13900	FP20PD	13,9	43	60	107	45	14
HPD104A13900	FP20PD	13,9	43	60	107	45	14
HPD103A14000	FP20PD	14	43	60	107	45	14
HPD104A14000	FP20PD	14	43	60	107	45	14
HPD103A14100	FP20PD	14,1	45	65	115	48	16
HPD104A14100	FP20PD	14,1	45	65	115	48	16

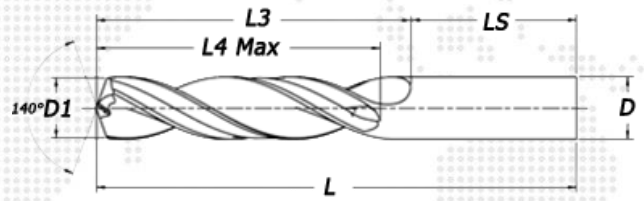
High Performance Drill - 3xD

FORNAX
Cutting Tools

103A – External Coolant

104A – Internal Coolant

- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7 - suitable as pilot for deep hole drills.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD103A14200	FP20PD	14,2	45	65	115	48	16
HPD104A14200	FP20PD	14,2	45	65	115	48	16
HPD103A14300	FP20PD	14,3	45	65	115	48	16
HPD104A14300	FP20PD	14,3	45	65	115	48	16
HPD103A14400	FP20PD	14,4	45	65	115	48	16
HPD104A14400	FP20PD	14,4	45	65	115	48	16
HPD103A14500	FP20PD	14,5	45	65	115	48	16
HPD104A14500	FP20PD	14,5	45	65	115	48	16
HPD103A14600	FP20PD	14,6	45	65	115	48	16
HPD104A14600	FP20PD	14,6	45	65	115	48	16
HPD103A14700	FP20PD	14,7	45	65	115	48	16
HPD104A14700	FP20PD	14,7	45	65	115	48	16
HPD103A14800	FP20PD	14,8	45	65	115	48	16
HPD104A14800	FP20PD	14,8	45	65	115	48	16
HPD103A14900	FP20PD	14,9	45	65	115	48	16
HPD104A14900	FP20PD	14,9	45	65	115	48	16
HPD103A15000	FP20PD	15	45	65	115	48	16
HPD104A15000	FP20PD	15	45	65	115	48	16
HPD103A15100	FP20PD	15,1	45	65	115	48	16
HPD104A15100	FP20PD	15,1	45	65	115	48	16
HPD103A15200	FP20PD	15,2	45	65	115	48	16
HPD104A15200	FP20PD	15,2	45	65	115	48	16
HPD103A15300	FP20PD	15,3	45	65	115	48	16
HPD104A15300	FP20PD	15,3	45	65	115	48	16
HPD103A15400	FP20PD	15,4	45	65	115	48	16
HPD104A15400	FP20PD	15,4	45	65	115	48	16
HPD103A15500	FP20PD	15,5	45	65	115	48	16
HPD104A15500	FP20PD	15,5	45	65	115	48	16
HPD103A15600	FP20PD	15,6	45	65	115	48	16
HPD104A15600	FP20PD	15,6	45	65	115	48	16
HPD103A15700	FP20PD	15,7	45	65	115	48	16
HPD104A15700	FP20PD	15,7	45	65	115	48	16

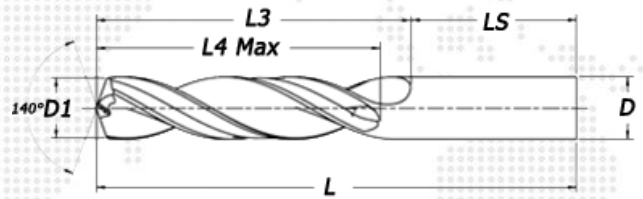
High Performance Drill - 3xD

FORNAX
Cutting Tools

103A – External Coolant

104A – Internal Coolant

- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7 - suitable as pilot for deep hole drills.
- Additional styles and coatings made-to-order.



DRILL



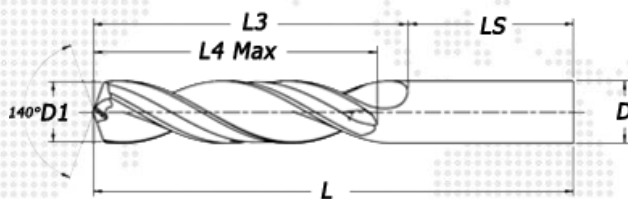
Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD103A15800	FP20PD	15,8	45	65	115	48	16
HPD104A15800	FP20PD	15,8	45	65	115	48	16
HPD103A15900	FP20PD	15,9	45	65	115	48	16
HPD104A15900	FP20PD	15,9	45	65	115	48	16
HPD103A16000	FP20PD	16	45	65	115	48	16
HPD104A16000	FP20PD	16	45	65	115	48	16
HPD103A16100	FP20PD	16,1	51	73	123	48	18
HPD104A16100	FP20PD	16,1	51	73	123	48	18
HPD103A16200	FP20PD	16,2	51	73	123	48	18
HPD104A16200	FP20PD	16,2	51	73	123	48	18
HPD103A16300	FP20PD	16,3	51	73	123	48	18
HPD104A16300	FP20PD	16,3	51	73	123	48	18
HPD103A16400	FP20PD	16,4	51	73	123	48	18
HPD104A16400	FP20PD	16,4	51	73	123	48	18
HPD103A16500	FP20PD	16,5	51	73	123	48	18
HPD104A16500	FP20PD	16,5	51	73	123	48	18
HPD103A16600	FP20PD	16,6	51	73	123	48	18
HPD104A16600	FP20PD	16,6	51	73	123	48	18
HPD103A16700	FP20PD	16,7	51	73	123	48	18
HPD104A16700	FP20PD	16,7	51	73	123	48	18
HPD103A16800	FP20PD	16,8	51	73	123	48	18
HPD104A16800	FP20PD	16,8	51	73	123	48	18
HPD103A16900	FP20PD	16,9	51	73	123	48	18
HPD104A16900	FP20PD	16,9	51	73	123	48	18
HPD103A17000	FP20PD	17	51	73	123	48	18
HPD104A17000	FP20PD	17	51	73	123	48	18
HPD103A17100	FP20PD	17,1	51	73	123	48	18
HPD104A17100	FP20PD	17,1	51	73	123	48	18
HPD103A17200	FP20PD	17,2	51	73	123	48	18
HPD104A17200	FP20PD	17,2	51	73	123	48	18
HPD103A17300	FP20PD	17,3	51	73	123	48	18
HPD104A17300	FP20PD	17,3	51	73	123	48	18

High Performance Drill - 3xD



103A – External Coolant
104A – Internal Coolant

- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7 - suitable as pilot for deep hole drills.
- Additional styles and coatings made-to-order.



DRILL



Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD103A17400	FP20PD	17,4	51	73	123	48	18
HPD104A17400	FP20PD	17,4	51	73	123	48	18
HPD103A17500	FP20PD	17,5	51	73	123	48	18
HPD104A17500	FP20PD	17,5	51	73	123	48	18
HPD103A17600	FP20PD	17,6	51	73	123	48	18
HPD104A17600	FP20PD	17,6	51	73	123	48	18
HPD103A17700	FP20PD	17,7	51	73	123	48	18
HPD104A17700	FP20PD	17,7	51	73	123	48	18
HPD103A17800	FP20PD	17,8	51	73	123	48	18
HPD104A17800	FP20PD	17,8	51	73	123	48	18
HPD103A17900	FP20PD	17,9	51	73	123	48	18
HPD104A17900	FP20PD	17,9	51	73	123	48	18
HPD103A18000	FP20PD	18	51	73	123	48	18
HPD104A18000	FP20PD	18	51	73	123	48	18
HPD103A18100	FP20PD	18,1	55	79	131	50	20
HPD104A18100	FP20PD	18,1	55	79	131	50	20
HPD103A18200	FP20PD	18,2	55	79	131	50	20
HPD104A18200	FP20PD	18,2	55	79	131	50	20
HPD103A18300	FP20PD	18,3	55	79	131	50	20
HPD104A18300	FP20PD	18,3	55	79	131	50	20
HPD103A18400	FP20PD	18,4	55	79	131	50	20
HPD104A18400	FP20PD	18,4	55	79	131	50	20
HPD103A18500	FP20PD	18,5	55	79	131	50	20
HPD104A18500	FP20PD	18,5	55	79	131	50	20
HPD103A18600	FP20PD	18,6	55	79	131	50	20
HPD104A18600	FP20PD	18,6	55	79	131	50	20
HPD103A18700	FP20PD	18,7	55	79	131	50	20
HPD104A18700	FP20PD	18,7	55	79	131	50	20
HPD103A18800	FP20PD	18,8	55	79	131	50	20
HPD104A18800	FP20PD	18,8	55	79	131	50	20
HPD103A18900	FP20PD	18,9	55	79	131	50	20
HPD104A18900	FP20PD	18,9	55	79	131	50	20

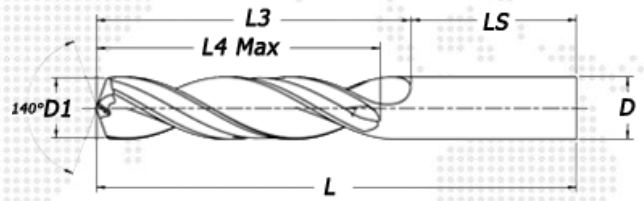
High Performance Drill - 3xD

FORNAX
Cutting Tools

103A – External Coolant

104A – Internal Coolant

- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7 - suitable as pilot for deep hole drills.
- Additional styles and coatings made-to-order.



DRILL

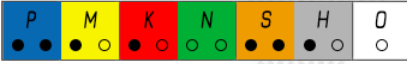
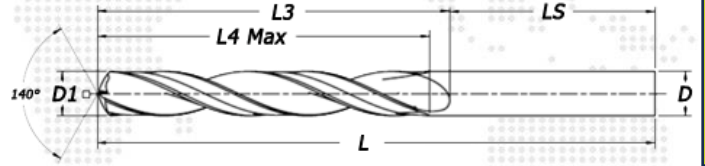
Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD103A19000	FP20PD	19	55	79	131	50	20
HPD104A19000	FP20PD	19	55	79	131	50	20
HPD103A19100	FP20PD	19,1	55	79	131	50	20
HPD104A19100	FP20PD	19,1	55	79	131	50	20
HPD103A19200	FP20PD	19,2	55	79	131	50	20
HPD104A19200	FP20PD	19,2	55	79	131	50	20
HPD103A19300	FP20PD	19,3	55	79	131	50	20
HPD104A19300	FP20PD	19,3	55	79	131	50	20
HPD103A19400	FP20PD	19,4	55	79	131	50	20
HPD104A19400	FP20PD	19,4	55	79	131	50	20
HPD103A19500	FP20PD	19,5	55	79	131	50	20
HPD104A19500	FP20PD	19,5	55	79	131	50	20
HPD103A19600	FP20PD	19,6	55	79	131	50	20
HPD104A19600	FP20PD	19,6	55	79	131	50	20
HPD103A19700	FP20PD	19,7	55	79	131	50	20
HPD104A19700	FP20PD	19,7	55	79	131	50	20
HPD103A19800	FP20PD	19,8	55	79	131	50	20
HPD104A19800	FP20PD	19,8	55	79	131	50	20
HPD103A19900	FP20PD	19,9	55	79	131	50	20
HPD104A19900	FP20PD	19,9	55	79	131	50	20
HPD103A20000	FP20PD	20	55	79	131	50	20
HPD104A20000	FP20PD	20	55	79	131	50	20

High Performance Drill - 5xD

105A – External Coolant

106A – Internal Coolant

- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7 - suitable as pilot for deep hole drills.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD105A02000	FP20PD	2	14	18	55	35	4
HPD106A02000	FP20PD	2	14	18	55	35	4
HPD105A02100	FP20PD	2,1	14	18	55	35	4
HPD106A02100	FP20PD	2,1	14	18	55	35	4
HPD105A02200	FP20PD	2,2	14	18	55	35	4
HPD106A02200	FP20PD	2,2	14	18	55	35	4
HPD105A02300	FP20PD	2,3	14	18	55	35	4
HPD106A02300	FP20PD	2,3	14	18	55	35	4
HPD105A02400	FP20PD	2,4	17	22	55	32	4
HPD106A02400	FP20PD	2,4	17	22	55	32	4
HPD105A02500	FP20PD	2,5	17	22	55	32	4
HPD106A02500	FP20PD	2,5	17	22	55	32	4
HPD105A02600	FP20PD	2,6	17	22	55	32	4
HPD106A02600	FP20PD	2,6	17	22	55	32	4
HPD105A02700	FP20PD	2,7	17	22	55	32	4
HPD106A02700	FP20PD	2,7	17	22	55	32	4
HPD105A02800	FP20PD	2,8	17	22	55	32	4
HPD106A02800	FP20PD	2,8	17	22	55	32	4
HPD105A02900	FP20PD	2,9	17	22	55	32	4
HPD106A02900	FP20PD	2,9	17	22	55	32	4

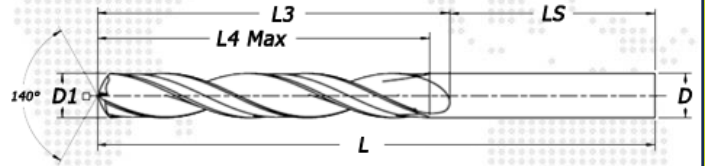
High Performance Drill - 5xD

FORNAX
Cutting Tools

105A – External Coolant

106A – Internal Coolant

- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7 - suitable as pilot for deep hole drills.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD105A03000	FP20PD	3	23	28	66	36	6
HPD106A03000	FP20PD	3	23	28	66	36	6
HPD105A03100	FP20PD	3,1	23	28	66	36	6
HPD106A03100	FP20PD	3,1	23	28	66	36	6
HPD105A03200	FP20PD	3,2	23	28	66	36	6
HPD106A03200	FP20PD	3,2	23	28	66	36	6
HPD105A03300	FP20PD	3,3	23	28	66	36	6
HPD106A03300	FP20PD	3,3	23	28	66	36	6
HPD105A03400	FP20PD	3,4	23	28	66	36	6
HPD106A03400	FP20PD	3,4	23	28	66	36	6
HPD105A03500	FP20PD	3,5	23	28	66	36	6
HPD106A03500	FP20PD	3,5	23	28	66	36	6
HPD105A03600	FP20PD	3,6	23	28	66	36	6
HPD106A03600	FP20PD	3,6	23	28	66	36	6
HPD105A03700	FP20PD	3,7	23	28	66	36	6
HPD106A03700	FP20PD	3,7	23	28	66	36	6
HPD105A03800	FP20PD	3,8	29	36	74	36	6
HPD106A03800	FP20PD	3,8	29	36	74	36	6
HPD105A03900	FP20PD	3,9	29	36	74	36	6
HPD106A03900	FP20PD	3,9	29	36	74	36	6
HPD105A04000	FP20PD	4	29	36	74	36	6
HPD106A04000	FP20PD	4	29	36	74	36	6
HPD105A04100	FP20PD	4,1	29	36	74	36	6
HPD106A04100	FP20PD	4,1	29	36	74	36	6
HPD105A04200	FP20PD	4,2	29	36	74	36	6
HPD106A04200	FP20PD	4,2	29	36	74	36	6
HPD105A04300	FP20PD	4,3	29	36	74	36	6
HPD106A04300	FP20PD	4,3	29	36	74	36	6
HPD105A04400	FP20PD	4,4	29	36	74	36	6
HPD106A04400	FP20PD	4,4	29	36	74	36	6
HPD105A04500	FP20PD	4,5	29	36	74	36	6
HPD106A04500	FP20PD	4,5	29	36	74	36	6

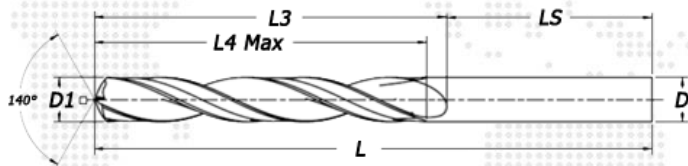
High Performance Drill - 5xD

FORNAX
Cutting Tools

105A – External Coolant
106A – Internal Coolant



- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7 - suitable as pilot for deep hole drills.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD105A04600	FP20PD	4,6	29	36	74	36	6
HPD106A04600	FP20PD	4,6	29	36	74	36	6
HPD105A04700	FP20PD	4,7	29	36	74	36	6
HPD106A04700	FP20PD	4,7	29	36	74	36	6
HPD105A04800	FP20PD	4,8	35	44	82	36	6
HPD106A04800	FP20PD	4,8	35	44	82	36	6
HPD105A04900	FP20PD	4,9	35	44	82	36	6
HPD106A04900	FP20PD	4,9	35	44	82	36	6
HPD105A05000	FP20PD	5	35	44	82	36	6
HPD106A05000	FP20PD	5	35	44	82	36	6
HPD105A05100	FP20PD	5,1	35	44	82	36	6
HPD106A05100	FP20PD	5,1	35	44	82	36	6
HPD105A05200	FP20PD	5,2	35	44	82	36	6
HPD106A05200	FP20PD	5,2	35	44	82	36	6
HPD105A05300	FP20PD	5,3	35	44	82	36	6
HPD106A05300	FP20PD	5,3	35	44	82	36	6
HPD105A05400	FP20PD	5,4	35	44	82	36	6
HPD106A05400	FP20PD	5,4	35	44	82	36	6
HPD105A05500	FP20PD	5,5	35	44	82	36	6
HPD106A05500	FP20PD	5,5	35	44	82	36	6
HPD105A05600	FP20PD	5,6	35	44	82	36	6
HPD106A05600	FP20PD	5,6	35	44	82	36	6
HPD105A05700	FP20PD	5,7	35	44	82	36	6
HPD106A05700	FP20PD	5,7	35	44	82	36	6
HPD105A05800	FP20PD	5,8	35	44	82	36	6
HPD106A05800	FP20PD	5,8	35	44	82	36	6
HPD105A05900	FP20PD	5,9	35	44	82	36	6
HPD106A05900	FP20PD	5,9	35	44	82	36	6
HPD105A06000	FP20PD	6	35	44	82	36	6
HPD106A06000	FP20PD	6	35	44	82	36	6
HPD105A06100	FP20PD	6,1	43	53	91	36	8
HPD106A06100	FP20PD	6,1	43	53	91	36	8

High Performance Drill - 5xD

FORNAX
Cutting Tools

105A – External Coolant

106A – Internal Coolant

- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7 - suitable as pilot for deep hole drills.
- Additional styles and coatings made-to-order.



DRILL

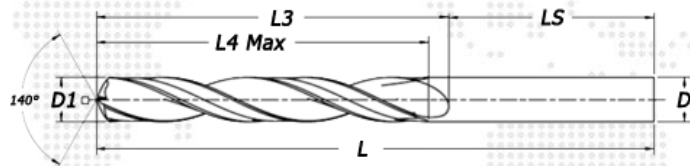
Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD105A06200	FP20PD	6,2	43	53	91	36	8
HPD106A06200	FP20PD	6,2	43	53	91	36	8
HPD105A06300	FP20PD	6,3	43	53	91	36	8
HPD106A06300	FP20PD	6,3	43	53	91	36	8
HPD105A06400	FP20PD	6,4	43	53	91	36	8
HPD106A06400	FP20PD	6,4	43	53	91	36	8
HPD105A06500	FP20PD	6,5	43	53	91	36	8
HPD106A06500	FP20PD	6,5	43	53	91	36	8
HPD105A06600	FP20PD	6,6	43	53	91	36	8
HPD106A06600	FP20PD	6,6	43	53	91	36	8
HPD105A06700	FP20PD	6,7	43	53	91	36	8
HPD106A06700	FP20PD	6,7	43	53	91	36	8
HPD105A06800	FP20PD	6,8	43	53	91	36	8
HPD106A06800	FP20PD	6,8	43	53	91	36	8
HPD105A06900	FP20PD	6,9	43	53	91	36	8
HPD106A06900	FP20PD	6,9	43	53	91	36	8
HPD105A07000	FP20PD	7	43	53	91	36	8
HPD106A07000	FP20PD	7	43	53	91	36	8
HPD105A07100	FP20PD	7,1	43	53	91	36	8
HPD106A07100	FP20PD	7,1	43	53	91	36	8
HPD105A07200	FP20PD	7,2	43	53	91	36	8
HPD106A07200	FP20PD	7,2	43	53	91	36	8
HPD105A07300	FP20PD	7,3	43	53	91	36	8
HPD106A07300	FP20PD	7,3	43	53	91	36	8
HPD105A07400	FP20PD	7,4	43	53	91	36	8
HPD106A07400	FP20PD	7,4	43	53	91	36	8
HPD105A07500	FP20PD	7,5	43	53	91	36	8
HPD106A07500	FP20PD	7,5	43	53	91	36	8
HPD105A07600	FP20PD	7,6	43	53	91	36	8
HPD106A07600	FP20PD	7,6	43	53	91	36	8
HPD105A07700	FP20PD	7,7	43	53	91	36	8
HPD106A07700	FP20PD	7,7	43	53	91	36	8

High Performance Drill - 5xD



105A – External Coolant
106A – Internal Coolant

- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7 - suitable as pilot for deep hole drills.
- Additional styles and coatings made-to-order.



DRILL

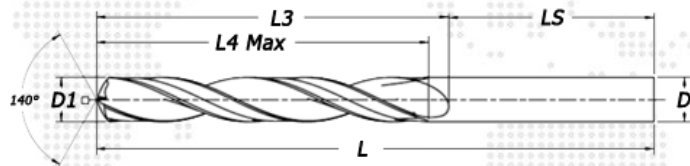
Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD105A07800	FP20PD	7,8	43	53	91	36	8
HPD106A07800	FP20PD	7,8	43	53	91	36	8
HPD105A07900	FP20PD	7,9	43	53	91	36	8
HPD106A07900	FP20PD	7,9	43	53	91	36	8
HPD105A08000	FP20PD	8	43	53	91	36	8
HPD106A08000	FP20PD	8	43	53	91	36	8
HPD105A08100	FP20PD	8,1	49	61	103	40	10
HPD106A08100	FP20PD	8,1	49	61	103	40	10
HPD105A08200	FP20PD	8,2	49	61	103	40	10
HPD106A08200	FP20PD	8,2	49	61	103	40	10
HPD105A08300	FP20PD	8,3	49	61	103	40	10
HPD106A08300	FP20PD	8,3	49	61	103	40	10
HPD105A08400	FP20PD	8,4	49	61	103	40	10
HPD106A08400	FP20PD	8,4	49	61	103	40	10
HPD105A08500	FP20PD	8,5	49	61	103	40	10
HPD106A08500	FP20PD	8,5	49	61	103	40	10
HPD105A08600	FP20PD	8,6	49	61	103	40	10
HPD106A08600	FP20PD	8,6	49	61	103	40	10
HPD105A08700	FP20PD	8,7	49	61	103	40	10
HPD106A08700	FP20PD	8,7	49	61	103	40	10
HPD105A08800	FP20PD	8,8	49	61	103	40	10
HPD106A08800	FP20PD	8,8	49	61	103	40	10
HPD105A08900	FP20PD	8,9	49	61	103	40	10
HPD106A08900	FP20PD	8,9	49	61	103	40	10
HPD105A09000	FP20PD	9	49	61	103	40	10
HPD106A09000	FP20PD	9	49	61	103	40	10
HPD105A09100	FP20PD	9,1	49	61	103	40	10
HPD106A09100	FP20PD	9,1	49	61	103	40	10
HPD105A09200	FP20PD	9,2	49	61	103	40	10
HPD106A09200	FP20PD	9,2	49	61	103	40	10
HPD105A09300	FP20PD	9,3	49	61	103	40	10
HPD106A09300	FP20PD	9,3	49	61	103	40	10

High Performance Drill - 5xD



105A – External Coolant
106A – Internal Coolant

- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7 - suitable as pilot for deep hole drills.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD105A09400	FP20PD	9,4	49	61	103	40	10
HPD106A09400	FP20PD	9,4	49	61	103	40	10
HPD105A09500	FP20PD	9,5	49	61	103	40	10
HPD106A09500	FP20PD	9,5	49	61	103	40	10
HPD105A09600	FP20PD	9,6	49	61	103	40	10
HPD106A09600	FP20PD	9,6	49	61	103	40	10
HPD105A09700	FP20PD	9,7	49	61	103	40	10
HPD106A09700	FP20PD	9,7	49	61	103	40	10
HPD105A09800	FP20PD	9,8	49	61	103	40	10
HPD106A09800	FP20PD	9,8	49	61	103	40	10
HPD105A09900	FP20PD	9,9	49	61	103	40	10
HPD106A09900	FP20PD	9,9	49	61	103	40	10
HPD105A10000	FP20PD	10	49	61	103	40	10
HPD106A10000	FP20PD	10	49	61	103	40	10
HPD105A10100	FP20PD	10,1	56	71	118	45	12
HPD106A10100	FP20PD	10,1	56	71	118	45	12
HPD105A10200	FP20PD	10,2	56	71	118	45	12
HPD106A10200	FP20PD	10,2	56	71	118	45	12
HPD105A10300	FP20PD	10,3	56	71	118	45	12
HPD106A10300	FP20PD	10,3	56	71	118	45	12
HPD105A10400	FP20PD	10,4	56	71	118	45	12
HPD106A10400	FP20PD	10,4	56	71	118	45	12
HPD105A10500	FP20PD	10,5	56	71	118	45	12
HPD106A10500	FP20PD	10,5	56	71	118	45	12
HPD105A10600	FP20PD	10,6	56	71	118	45	12
HPD106A10600	FP20PD	10,6	56	71	118	45	12
HPD105A10700	FP20PD	10,7	56	71	118	45	12
HPD106A10700	FP20PD	10,7	56	71	118	45	12
HPD105A10800	FP20PD	10,8	56	71	118	45	12
HPD106A10800	FP20PD	10,8	56	71	118	45	12
HPD105A10900	FP20PD	10,9	56	71	118	45	12
HPD106A10900	FP20PD	10,9	56	71	118	45	12

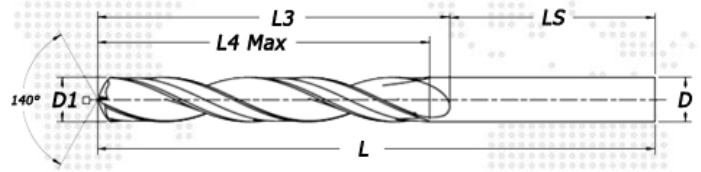
High Performance Drill - 5xD

FORNAX
Cutting Tools

105A – External Coolant

106A – Internal Coolant

- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7 - suitable as pilot for deep hole drills.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD105A11000	FP20PD	11	56	71	118	45	12
HPD106A11000	FP20PD	11	56	71	118	45	12
HPD105A11100	FP20PD	11,1	56	71	118	45	12
HPD106A11100	FP20PD	11,1	56	71	118	45	12
HPD105A11200	FP20PD	11,2	56	71	118	45	12
HPD106A11200	FP20PD	11,2	56	71	118	45	12
HPD105A11300	FP20PD	11,3	56	71	118	45	12
HPD106A11300	FP20PD	11,3	56	71	118	45	12
HPD105A11400	FP20PD	11,4	56	71	118	45	12
HPD106A11400	FP20PD	11,4	56	71	118	45	12
HPD105A11500	FP20PD	11,5	56	71	118	45	12
HPD106A11500	FP20PD	11,5	56	71	118	45	12
HPD105A11600	FP20PD	11,6	56	71	118	45	12
HPD106A11600	FP20PD	11,6	56	71	118	45	12
HPD105A11700	FP20PD	11,7	56	71	118	45	12
HPD106A11700	FP20PD	11,7	56	71	118	45	12
HPD105A11800	FP20PD	11,8	56	71	118	45	12
HPD106A11800	FP20PD	11,8	56	71	118	45	12
HPD105A11900	FP20PD	11,9	56	71	118	45	12
HPD106A11900	FP20PD	11,9	56	71	118	45	12
HPD105A12000	FP20PD	12	56	71	118	45	12
HPD106A12000	FP20PD	12	56	71	118	45	12
HPD105A12100	FP20PD	12,1	60	77	124	45	14
HPD106A12100	FP20PD	12,1	60	77	124	45	14
HPD105A12200	FP20PD	12,2	60	77	124	45	14
HPD106A12200	FP20PD	12,2	60	77	124	45	14
HPD105A12300	FP20PD	12,3	60	77	124	45	14
HPD106A12300	FP20PD	12,3	60	77	124	45	14
HPD105A12400	FP20PD	12,4	60	77	124	45	14
HPD106A12400	FP20PD	12,4	60	77	124	45	14
HPD105A12500	FP20PD	12,5	60	77	124	45	14
HPD106A12500	FP20PD	12,5	60	77	124	45	14

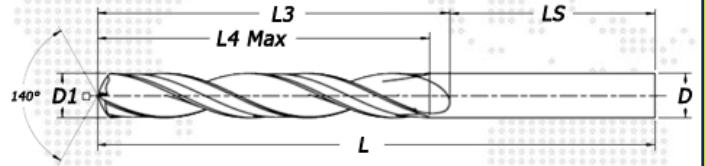
High Performance Drill - 5xD

FORNAX
Cutting Tools

105A – External Coolant

106A – Internal Coolant

- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7 - suitable as pilot for deep hole drills.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD105A12600	FP20PD	12,6	60	77	124	45	14
HPD106A12600	FP20PD	12,6	60	77	124	45	14
HPD105A12700	FP20PD	12,7	60	77	124	45	14
HPD106A12700	FP20PD	12,7	60	77	124	45	14
HPD105A12800	FP20PD	12,8	60	77	124	45	14
HPD106A12800	FP20PD	12,8	60	77	124	45	14
HPD105A12900	FP20PD	12,9	60	77	124	45	14
HPD106A12900	FP20PD	12,9	60	77	124	45	14
HPD105A13000	FP20PD	13	60	77	124	45	14
HPD106A13000	FP20PD	13	60	77	124	45	14
HPD105A13100	FP20PD	13,1	60	77	124	45	14
HPD106A13100	FP20PD	13,1	60	77	124	45	14
HPD105A13200	FP20PD	13,2	60	77	124	45	14
HPD106A13200	FP20PD	13,2	60	77	124	45	14
HPD105A13300	FP20PD	13,3	60	77	124	45	14
HPD106A13300	FP20PD	13,3	60	77	124	45	14
HPD105A13400	FP20PD	13,4	60	77	124	45	14
HPD106A13400	FP20PD	13,4	60	77	124	45	14
HPD105A13500	FP20PD	13,5	60	77	124	45	14
HPD106A13500	FP20PD	13,5	60	77	124	45	14
HPD105A13600	FP20PD	13,6	60	77	124	45	14
HPD106A13600	FP20PD	13,6	60	77	124	45	14
HPD105A13700	FP20PD	13,7	60	77	124	45	14
HPD106A13700	FP20PD	13,7	60	77	124	45	14
HPD105A13800	FP20PD	13,8	60	77	124	45	14
HPD106A13800	FP20PD	13,8	60	77	124	45	14
HPD105A13900	FP20PD	13,9	60	77	124	45	14
HPD106A13900	FP20PD	13,9	60	77	124	45	14
HPD105A14000	FP20PD	14	60	77	124	45	14
HPD106A14000	FP20PD	14	60	77	124	45	14
HPD105A14100	FP20PD	14,1	63	83	133	48	16
HPD106A14100	FP20PD	14,1	63	83	133	48	16

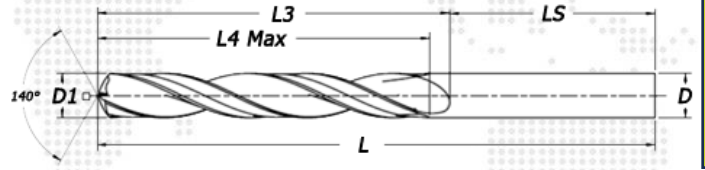
High Performance Drill - 5xD

FORNAX
Cutting Tools

105A – External Coolant

106A – Internal Coolant

- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7 - suitable as pilot for deep hole drills.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD105A14200	FP20PD	14,2	63	83	133	48	16
HPD106A14200	FP20PD	14,2	63	83	133	48	16
HPD105A14300	FP20PD	14,3	63	83	133	48	16
HPD106A14300	FP20PD	14,3	63	83	133	48	16
HPD105A14400	FP20PD	14,4	63	83	133	48	16
HPD106A14400	FP20PD	14,4	63	83	133	48	16
HPD105A14500	FP20PD	14,5	63	83	133	48	16
HPD106A14500	FP20PD	14,5	63	83	133	48	16
HPD105A14600	FP20PD	14,6	63	83	133	48	16
HPD106A14600	FP20PD	14,6	63	83	133	48	16
HPD105A14700	FP20PD	14,7	63	83	133	48	16
HPD106A14700	FP20PD	14,7	63	83	133	48	16
HPD105A14800	FP20PD	14,8	63	83	133	48	16
HPD106A14800	FP20PD	14,8	63	83	133	48	16
HPD105A14900	FP20PD	14,9	63	83	133	48	16
HPD106A14900	FP20PD	14,9	63	83	133	48	16
HPD105A15000	FP20PD	15	63	83	133	48	16
HPD106A15000	FP20PD	15	63	83	133	48	16
HPD105A15100	FP20PD	15,1	63	83	133	48	16
HPD106A15100	FP20PD	15,1	63	83	133	48	16
HPD105A15200	FP20PD	15,2	63	83	133	48	16
HPD106A15200	FP20PD	15,2	63	83	133	48	16
HPD105A15300	FP20PD	15,3	63	83	133	48	16
HPD106A15300	FP20PD	15,3	63	83	133	48	16
HPD105A15400	FP20PD	15,4	63	83	133	48	16
HPD106A15400	FP20PD	15,4	63	83	133	48	16
HPD105A15500	FP20PD	15,5	63	83	133	48	16
HPD106A15500	FP20PD	15,5	63	83	133	48	16
HPD105A15600	FP20PD	15,6	63	83	133	48	16
HPD106A15600	FP20PD	15,6	63	83	133	48	16
HPD105A15700	FP20PD	15,7	63	83	133	48	16
HPD106A15700	FP20PD	15,7	63	83	133	48	16

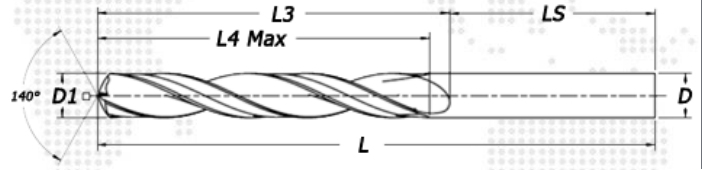
High Performance Drill - 5xD



105A – External Coolant

106A – Internal Coolant

- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7 - suitable as pilot for deep hole drills.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD105A15800	FP20PD	15,8	63	83	133	48	16
HPD106A15800	FP20PD	15,8	63	83	133	48	16
HPD105A15900	FP20PD	15,9	63	83	133	48	16
HPD106A15900	FP20PD	15,9	63	83	133	48	16
HPD105A16000	FP20PD	16	63	83	133	48	16
HPD106A16000	FP20PD	16	63	83	133	48	16
HPD105A16100	FP20PD	16,1	71	93	143	48	18
HPD106A16100	FP20PD	16,1	71	93	143	48	18
HPD105A16200	FP20PD	16,2	71	93	143	48	18
HPD106A16200	FP20PD	16,2	71	93	143	48	18
HPD105A16300	FP20PD	16,3	71	93	143	48	18
HPD106A16300	FP20PD	16,3	71	93	143	48	18
HPD105A16400	FP20PD	16,4	71	93	143	48	18
HPD106A16400	FP20PD	16,4	71	93	143	48	18
HPD105A16500	FP20PD	16,5	71	93	143	48	18
HPD106A16500	FP20PD	16,5	71	93	143	48	18
HPD105A16600	FP20PD	16,6	71	93	143	48	18
HPD106A16600	FP20PD	16,6	71	93	143	48	18
HPD105A16700	FP20PD	16,7	71	93	143	48	18
HPD106A16700	FP20PD	16,7	71	93	143	48	18
HPD105A16800	FP20PD	16,8	71	93	143	48	18
HPD106A16800	FP20PD	16,8	71	93	143	48	18
HPD105A16900	FP20PD	16,9	71	93	143	48	18
HPD106A16900	FP20PD	16,9	71	93	143	48	18
HPD105A17000	FP20PD	17	71	93	143	48	18
HPD106A17000	FP20PD	17	71	93	143	48	18
HPD105A17100	FP20PD	17,1	71	93	143	48	18
HPD106A17100	FP20PD	17,1	71	93	143	48	18
HPD105A17200	FP20PD	17,2	71	93	143	48	18
HPD106A17200	FP20PD	17,2	71	93	143	48	18
HPD105A17300	FP20PD	17,3	71	93	143	48	18
HPD106A17300	FP20PD	17,3	71	93	143	48	18

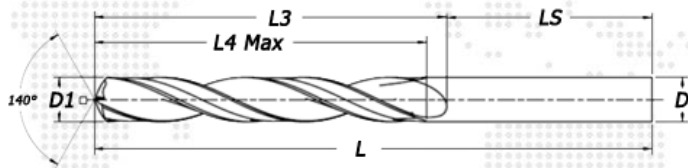
High Performance Drill - 5xD

FORNAX
Cutting Tools

105A – External Coolant
106A – Internal Coolant



- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7 - suitable as pilot for deep hole drills.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD105A17400	FP20PD	17,4	71	93	143	48	18
HPD106A17400	FP20PD	17,4	71	93	143	48	18
HPD105A17500	FP20PD	17,5	71	93	143	48	18
HPD106A17500	FP20PD	17,5	71	93	143	48	18
HPD105A17600	FP20PD	17,6	71	93	143	48	18
HPD106A17600	FP20PD	17,6	71	93	143	48	18
HPD105A17700	FP20PD	17,7	71	93	143	48	18
HPD106A17700	FP20PD	17,7	71	93	143	48	18
HPD105A17800	FP20PD	17,8	71	93	143	48	18
HPD106A17800	FP20PD	17,8	71	93	143	48	18
HPD105A17900	FP20PD	17,9	71	93	143	48	18
HPD106A17900	FP20PD	17,9	71	93	143	48	18
HPD105A18000	FP20PD	18	71	93	143	48	18
HPD106A18000	FP20PD	18	71	93	143	48	18
HPD105A18100	FP20PD	18,1	77	101	153	50	20
HPD106A18100	FP20PD	18,1	77	101	153	50	20
HPD105A18200	FP20PD	18,2	77	101	153	50	20
HPD106A18200	FP20PD	18,2	77	101	153	50	20
HPD105A18300	FP20PD	18,3	77	101	153	50	20
HPD106A18300	FP20PD	18,3	77	101	153	50	20
HPD105A18400	FP20PD	18,4	77	101	153	50	20
HPD106A18400	FP20PD	18,4	77	101	153	50	20
HPD105A18500	FP20PD	18,5	77	101	153	50	20
HPD106A18500	FP20PD	18,5	77	101	153	50	20
HPD105A18600	FP20PD	18,6	77	101	153	50	20
HPD106A18600	FP20PD	18,6	77	101	153	50	20
HPD105A18700	FP20PD	18,7	77	101	153	50	20
HPD106A18700	FP20PD	18,7	77	101	153	50	20
HPD105A18800	FP20PD	18,8	77	101	153	50	20
HPD106A18800	FP20PD	18,8	77	101	153	50	20
HPD105A18900	FP20PD	18,9	77	101	153	50	20
HPD106A18900	FP20PD	18,9	77	101	153	50	20

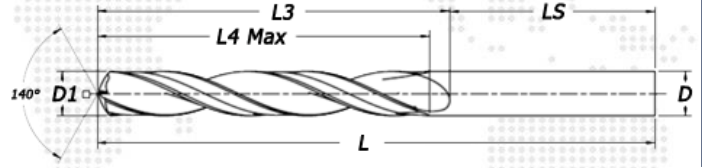
High Performance Drill - 5xD



105A – External Coolant

106A – Internal Coolant

- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7 - suitable as pilot for deep hole drills.
- Additional styles and coatings made-to-order.



DRILL

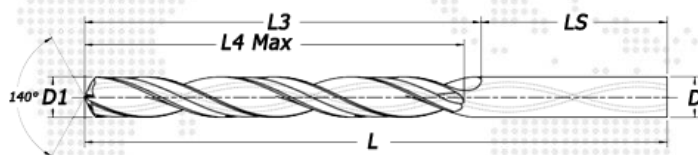
Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD105A19000	FP20PD	19	77	101	153	50	20
HPD106A19000	FP20PD	19	77	101	153	50	20
HPD105A19100	FP20PD	19,1	77	101	153	50	20
HPD106A19100	FP20PD	19,1	77	101	153	50	20
HPD105A19200	FP20PD	19,2	77	101	153	50	20
HPD106A19200	FP20PD	19,2	77	101	153	50	20
HPD105A19300	FP20PD	19,3	77	101	153	50	20
HPD106A19300	FP20PD	19,3	77	101	153	50	20
HPD105A19400	FP20PD	19,4	77	101	153	50	20
HPD106A19400	FP20PD	19,4	77	101	153	50	20
HPD105A19500	FP20PD	19,5	77	101	153	50	20
HPD106A19500	FP20PD	19,5	77	101	153	50	20
HPD105A19600	FP20PD	19,6	77	101	153	50	20
HPD106A19600	FP20PD	19,6	77	101	153	50	20
HPD105A19700	FP20PD	19,7	77	101	153	50	20
HPD106A19700	FP20PD	19,7	77	101	153	50	20
HPD105A19800	FP20PD	19,8	77	101	153	50	20
HPD106A19800	FP20PD	19,8	77	101	153	50	20
HPD105A19900	FP20PD	19,9	77	101	153	50	20
HPD106A19900	FP20PD	19,9	77	101	153	50	20
HPD105A20000	FP20PD	20	77	101	153	50	20
HPD106A20000	FP20PD	20	77	101	153	50	20

High Performance Drill - 8xD

108A – External Coolant



- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7.
- Additional styles and coatings made-to-order.



DRILL

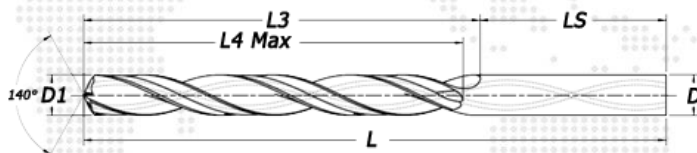
Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD108A02000	FP20PD	2	22	26	66	38	4
HPD108A02100	FP20PD	2,1	22	26	66	38	4
HPD108A02200	FP20PD	2,2	22	26	66	38	4
HPD108A02300	FP20PD	2,3	22	26	66	38	4
HPD108A02400	FP20PD	2,4	25	30	66	35	4
HPD108A02500	FP20PD	2,5	25	30	66	35	4
HPD108A02600	FP20PD	2,6	25	30	66	35	4
HPD108A02700	FP20PD	2,7	25	30	66	35	4
HPD108A02800	FP20PD	2,8	25	30	66	35	4
HPD108A02900	FP20PD	2,9	25	30	66	35	4

High Performance Drill - 8xD

108A – External Coolant



- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD108A03000	FP20PD	3	33	40	78	36	6
HPD108A03100	FP20PD	3,1	33	40	78	36	6
HPD108A03200	FP20PD	3,2	33	40	78	36	6
HPD108A03300	FP20PD	3,3	33	40	78	36	6
HPD108A03400	FP20PD	3,4	33	40	78	36	6
HPD108A03500	FP20PD	3,5	33	49	78	36	6
HPD108A03600	FP20PD	3,6	33	40	78	36	6
HPD108A03700	FP20PD	3,7	33	40	78	36	6
HPD108A03800	FP20PD	3,8	41	49	87	36	6
HPD108A03900	FP20PD	3,9	41	40	87	36	6
HPD108A04000	FP20PD	4	41	40	87	36	6
HPD108A04100	FP20PD	4,1	41	49	87	36	6
HPD108A04200	FP20PD	4,2	41	49	87	36	6
HPD108A04300	FP20PD	4,3	41	49	87	36	6
HPD108A04400	FP20PD	4,4	41	49	87	36	6
HPD108A04500	FP20PD	4,5	41	49	87	36	6
HPD108A04600	FP20PD	4,6	41	49	87	36	6
HPD108A04700	FP20PD	4,7	41	56	87	36	6
HPD108A04800	FP20PD	4,8	48	56	94	36	6
HPD108A04900	FP20PD	4,9	48	56	94	36	6
HPD108A05000	FP20PD	5	48	56	94	36	6
HPD108A05100	FP20PD	5,1	48	56	94	36	6
HPD108A05200	FP20PD	5,2	48	56	94	36	6
HPD108A05300	FP20PD	5,3	48	56	94	36	6
HPD108A05400	FP20PD	5,4	48	56	94	36	6
HPD108A05500	FP20PD	5,5	48	56	94	36	6
HPD108A05600	FP20PD	5,6	48	56	94	36	6
HPD108A05700	FP20PD	5,7	48	56	94	36	6
HPD108A05800	FP20PD	5,8	48	67	94	36	6
HPD108A05900	FP20PD	5,9	48	67	94	36	6
HPD108A06000	FP20PD	6	48	67	94	36	6
HPD108A06100	FP20PD	6,1	57	67	105	36	8

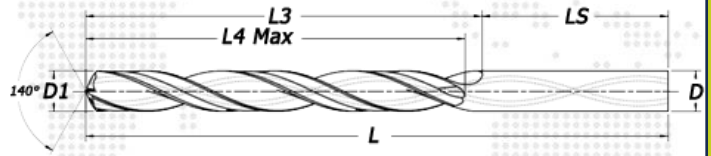
High Performance Drill - 8xD



108A – External Coolant



- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD108A06200	FP20PD	6,2	57	67	105	36	8
HPD108A06300	FP20PD	6,3	57	56	105	36	8
HPD108A06400	FP20PD	6,4	57	67	105	36	8
HPD108A06500	FP20PD	6,5	57	67	105	36	8
HPD108A06600	FP20PD	6,6	57	67	105	36	8
HPD108A06700	FP20PD	6,7	57	67	105	36	8
HPD108A06800	FP20PD	6,8	57	67	105	36	8
HPD108A06900	FP20PD	6,9	57	67	105	36	8
HPD108A07000	FP20PD	7	57	72	105	36	8
HPD108A07100	FP20PD	7,1	61	72	110	36	8
HPD108A07200	FP20PD	7,2	61	72	110	36	8
HPD108A07300	FP20PD	7,3	61	72	110	36	8
HPD108A07400	FP20PD	7,4	61	72	110	36	8
HPD108A07500	FP20PD	7,5	61	72	110	36	8
HPD108A07600	FP20PD	7,6	61	80	110	36	8
HPD108A07700	FP20PD	7,7	61	80	110	36	8
HPD108A07800	FP20PD	7,8	61	80	110	36	8
HPD108A07900	FP20PD	7,9	61	80	110	36	8
HPD108A08000	FP20PD	8	61	80	110	36	8
HPD108A08100	FP20PD	8,1	68	80	122	40	10
HPD108A08200	FP20PD	8,2	68	80	122	40	10
HPD108A08300	FP20PD	8,3	68	80	122	40	10
HPD108A08400	FP20PD	8,4	68	72	122	40	10
HPD108A08500	FP20PD	8,5	68	80	122	40	10
HPD108A08600	FP20PD	8,6	68	80	122	40	10
HPD108A08700	FP20PD	8,7	68	72	122	40	10
HPD108A08800	FP20PD	8,8	68	72	122	40	10
HPD108A08900	FP20PD	8,9	68	72	122	40	10
HPD108A09000	FP20PD	9	68	72	122	40	10
HPD108A09100	FP20PD	9,1	68	80	122	40	10
HPD108A09200	FP20PD	9,2	68	80	122	40	10
HPD108A09300	FP20PD	9,3	68	80	122	40	10

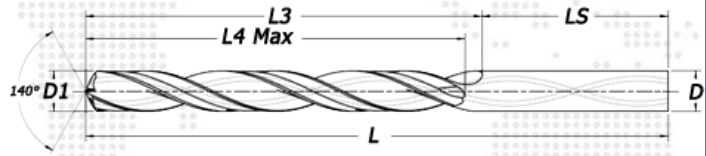
High Performance Drill - 8xD



108A – External Coolant



- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD108A09400	FP20PD	9,4	68	80	122	40	10
HPD108A09500	FP20PD	9,5	68	80	122	40	10
HPD108A09600	FP20PD	9,6	68	80	122	40	10
HPD108A09700	FP20PD	9,7	68	80	122	40	10
HPD108A09800	FP20PD	9,8	68	80	122	40	10
HPD108A09900	FP20PD	9,9	68	80	122	40	10
HPD108A10000	FP20PD	10	68	80	122	40	10
HPD108A10100	FP20PD	10,1	79	94	141	45	12
HPD108A10200	FP20PD	10,2	79	94	141	45	12
HPD108A10300	FP20PD	10,3	79	94	141	45	12
HPD108A10400	FP20PD	10,4	79	94	141	45	12
HPD108A10500	FP20PD	10,5	79	94	141	45	12
HPD108A10600	FP20PD	10,6	79	94	141	45	12
HPD108A10700	FP20PD	10,7	79	94	141	45	12
HPD108A10800	FP20PD	10,8	79	94	141	45	12
HPD108A10900	FP20PD	10,9	79	94	141	45	12
HPD108A11000	FP20PD	11	79	94	141	45	12
HPD108A11100	FP20PD	11,1	79	94	141	45	12
HPD108A11200	FP20PD	11,2	79	94	141	45	12
HPD108A11300	FP20PD	11,3	79	94	141	45	12
HPD108A11400	FP20PD	11,4	79	94	141	45	12
HPD108A11500	FP20PD	11,5	79	94	141	45	12
HPD108A11600	FP20PD	11,6	79	94	141	45	12
HPD108A11700	FP20PD	11,7	79	94	141	45	12
HPD108A11800	FP20PD	11,8	79	94	141	45	12
HPD108A11900	FP20PD	11,9	79	94	141	45	12
HPD108A12000	FP20PD	12	79	94	141	45	12
HPD108A12100	FP20PD	12,1	91	108	155	45	14
HPD108A12200	FP20PD	12,2	91	108	155	45	14
HPD108A12300	FP20PD	12,3	91	108	155	45	14
HPD108A12400	FP20PD	12,4	91	108	155	45	14
HPD108A12500	FP20PD	12,5	91	108	155	45	14

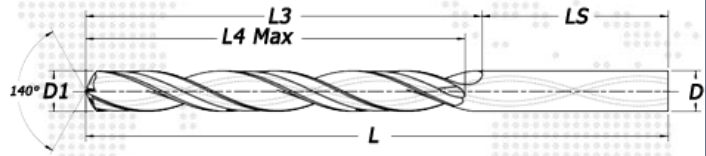
High Performance Drill - 8xD



108A – External Coolant



- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD108A12600	FP20PD	12,6	91	108	155	45	14
HPD108A12700	FP20PD	12,7	91	108	155	45	14
HPD108A12800	FP20PD	12,8	91	108	155	45	14
HPD108A12900	FP20PD	12,9	91	108	155	45	14
HPD108A13000	FP20PD	13	91	108	155	45	14
HPD108A13100	FP20PD	13,1	91	108	155	45	14
HPD108A13200	FP20PD	13,2	91	108	155	45	14
HPD108A13300	FP20PD	13,3	91	108	155	45	14
HPD108A13400	FP20PD	13,4	91	108	155	45	14
HPD108A13500	FP20PD	13,5	91	108	155	45	14
HPD108A13600	FP20PD	13,6	91	108	155	45	14
HPD108A13700	FP20PD	13,7	91	108	155	45	14
HPD108A13800	FP20PD	13,8	91	108	155	45	14
HPD108A13900	FP20PD	13,9	91	108	155	45	14
HPD108A14000	FP20PD	14	91	108	155	45	14
HPD108A14100	FP20PD	14,1	101	121	171	48	16
HPD108A14200	FP20PD	14,2	101	121	171	48	16
HPD108A14300	FP20PD	14,3	101	121	171	48	16
HPD108A14400	FP20PD	14,4	101	121	171	48	16
HPD108A14500	FP20PD	14,5	101	121	171	48	16
HPD108A14600	FP20PD	14,6	101	121	171	48	16
HPD108A14700	FP20PD	14,7	101	121	171	48	16
HPD108A14800	FP20PD	14,8	101	121	171	48	16
HPD108A14900	FP20PD	14,9	101	121	171	48	16
HPD108A15000	FP20PD	15	101	121	171	48	16
HPD108A15100	FP20PD	15,1	101	121	171	48	16
HPD108A15200	FP20PD	15,2	101	121	171	48	16
HPD108A15300	FP20PD	15,3	101	121	171	48	16
HPD108A15400	FP20PD	15,4	101	121	171	48	16
HPD108A15500	FP20PD	15,5	101	121	171	48	16
HPD108A15600	FP20PD	15,6	101	121	171	48	16
HPD108A15700	FP20PD	15,7	101	121	171	48	16

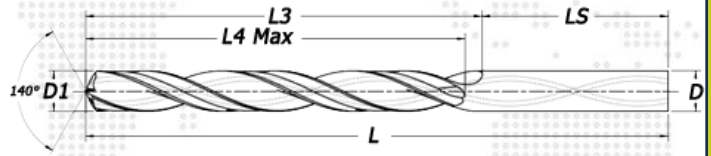
High Performance Drill - 8xD



108A – External Coolant



- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD108A15800	FP20PD	15,8	101	121	171	48	16
HPD108A15900	FP20PD	15,9	101	121	171	48	16
HPD108A16000	FP20PD	16	101	121	171	48	16
HPD108A16100	FP20PD	16,1	113	135	185	48	18
HPD108A16200	FP20PD	16,2	113	135	185	48	18
HPD108A16300	FP20PD	16,3	113	135	185	48	18
HPD108A16400	FP20PD	16,4	113	135	185	48	18
HPD108A16500	FP20PD	16,5	113	135	185	48	18
HPD108A16600	FP20PD	16,6	113	135	185	48	18
HPD108A16700	FP20PD	16,7	113	135	185	48	18
HPD108A16800	FP20PD	16,8	113	135	185	48	18
HPD108A16900	FP20PD	16,9	113	135	185	48	18
HPD108A17000	FP20PD	17	113	135	185	48	18
HPD108A17100	FP20PD	17,1	113	135	185	48	18
HPD108A17200	FP20PD	17,2	113	135	185	48	18
HPD108A17300	FP20PD	17,3	113	135	185	48	18
HPD108A17400	FP20PD	17,4	113	135	185	48	18
HPD108A17500	FP20PD	17,5	113	135	185	48	18
HPD108A17600	FP20PD	17,6	113	135	185	48	18
HPD108A17700	FP20PD	17,7	113	135	185	48	18
HPD108A17800	FP20PD	17,8	113	135	185	48	18
HPD108A17900	FP20PD	17,9	113	135	185	48	18
HPD108A18000	FP20PD	18	113	135	185	48	18
HPD108A18100	FP20PD	18,1	124	148	200	50	20
HPD108A18200	FP20PD	18,2	124	148	200	50	20
HPD108A18300	FP20PD	18,3	124	148	200	50	20
HPD108A18400	FP20PD	18,4	124	148	200	50	20
HPD108A18500	FP20PD	18,5	124	148	200	50	20
HPD108A18600	FP20PD	18,6	124	148	200	50	20
HPD108A18700	FP20PD	18,7	124	148	200	50	20
HPD108A18800	FP20PD	18,8	124	148	200	50	20
HPD108A18900	FP20PD	18,9	124	148	200	50	20

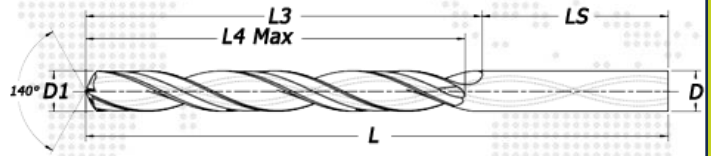
High Performance Drill - 8xD



108A – External Coolant



- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7.
- Additional styles and coatings made-to-order.



DRILL

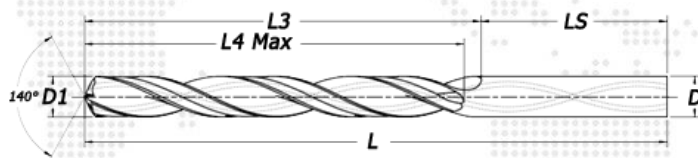
Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD108A19000	FP20PD	19	124	148	200	50	20
HPD108A19100	FP20PD	19,1	124	148	200	50	20
HPD108A19200	FP20PD	19,2	124	148	200	50	20
HPD108A19300	FP20PD	19,3	124	148	200	50	20
HPD108A19400	FP20PD	19,4	124	148	200	50	20
HPD108A19500	FP20PD	19,5	124	148	200	50	20
HPD108A19600	FP20PD	19,6	124	148	200	50	20
HPD108A19700	FP20PD	19,7	124	148	200	50	20
HPD108A19800	FP20PD	19,8	124	148	200	50	20
HPD108A19900	FP20PD	19,9	124	148	200	50	20
HPD108A20000	FP20PD	20	124	148	200	50	20

High Performance Drill - 12xD

112A – Internal Coolant



- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7.
- Additional styles and coatings made-to-order.



DRILL

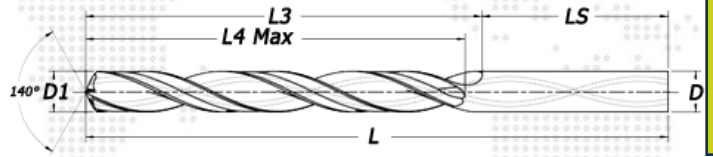
Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD112A02000	FP20PD	2	28	35	75	36	4
HPD112A02100	FP20PD	2,1	28	35	75	36	4
HPD112A02200	FP20PD	2,2	28	35	75	36	4
HPD112A02300	FP20PD	2,3	28	35	75	36	4
HPD112A02400	FP20PD	2,4	35	42	75	30	4
HPD112A02500	FP20PD	2,5	35	42	75	30	4
HPD112A02600	FP20PD	2,6	35	42	75	30	4
HPD112A02700	FP20PD	2,7	35	42	75	30	4
HPD112A02800	FP20PD	2,8	35	42	75	30	4
HPD112A02900	FP20PD	2,9	35	42	75	30	4

High Performance Drill - 12xD

112A – Internal Coolant



- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD112A03000	FP20PD	3	44	52	93	40	6
HPD112A03100	FP20PD	3,1	44	52	93	40	6
HPD112A03200	FP20PD	3,2	44	52	93	40	6
HPD112A03300	FP20PD	3,3	44	52	93	40	6
HPD112A03400	FP20PD	3,4	44	52	93	40	6
HPD112A03500	FP20PD	3,5	44	52	93	40	6
HPD112A03600	FP20PD	3,6	44	52	93	40	6
HPD112A03700	FP20PD	3,7	45	54	93	38	6
HPD112A03800	FP20PD	3,8	45	54	93	38	6
HPD112A03900	FP20PD	3,9	56	66	107	40	6
HPD112A04000	FP20PD	4	56	66	107	40	6
HPD112A04100	FP20PD	4,1	56	66	107	40	6
HPD112A04200	FP20PD	4,2	56	66	107	40	6
HPD112A04300	FP20PD	4,3	56	66	107	40	6
HPD112A04400	FP20PD	4,4	56	66	107	40	6
HPD112A04500	FP20PD	4,5	56	66	107	40	6
HPD112A04600	FP20PD	4,6	56	66	107	40	6
HPD112A04700	FP20PD	4,7	69	82	125	40	6
HPD112A04800	FP20PD	4,8	69	82	125	40	6
HPD112A04900	FP20PD	4,9	69	82	125	40	6
HPD112A05000	FP20PD	5	70	83	125	40	6
HPD112A05100	FP20PD	5,1	70	83	125	40	6
HPD112A05200	FP20PD	5,2	70	83	125	40	6
HPD112A05300	FP20PD	5,3	71	84	125	40	6
HPD112A05400	FP20PD	5,4	71	84	125	40	6
HPD112A05500	FP20PD	5,5	71	84	125	40	6
HPD112A05600	FP20PD	5,6	71	84	125	40	6
HPD112A05700	FP20PD	5,7	71	84	125	40	6
HPD112A05800	FP20PD	5,8	71	84	125	40	6
HPD112A05900	FP20PD	5,9	71	84	125	40	6
HPD112A06000	FP20PD	6	72	86	125	40	6
HPD112A06100	FP20PD	6,1	82	97	139	40	8

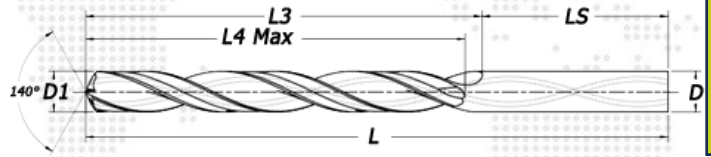
High Performance Drill - 12xD



112A – Internal Coolant



- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD112A06200	FP20PD	6,2	82	97	139	40	8
HPD112A06300	FP20PD	6,3	82	97	139	40	8
HPD112A06400	FP20PD	6,4	82	97	139	40	8
HPD112A06500	FP20PD	6,5	83	98	139	40	8
HPD112A06600	FP20PD	6,6	84	99	139	40	8
HPD112A06700	FP20PD	6,7	84	99	139	40	8
HPD112A06800	FP20PD	6,8	84	99	139	40	8
HPD112A06900	FP20PD	6,9	84	99	139	40	8
HPD112A07000	FP20PD	7	84	99	139	40	8
HPD112A07100	FP20PD	7,1	94	111	153	40	8
HPD112A07200	FP20PD	7,2	94	111	153	40	8
HPD112A07300	FP20PD	7,3	94	111	153	40	8
HPD112A07400	FP20PD	7,4	94	111	153	40	8
HPD112A07500	FP20PD	7,5	95	112	153	40	8
HPD112A07600	FP20PD	7,6	95	112	153	40	8
HPD112A07700	FP20PD	7,7	95	112	153	40	8
HPD112A07800	FP20PD	7,8	95	112	153	40	8
HPD112A07900	FP20PD	7,9	96	114	153	40	8
HPD112A08000	FP20PD	8	96	114	153	40	8
HPD112A08100	FP20PD	8,1	116	136	185	40	10
HPD112A08200	FP20PD	8,2	116	136	185	40	10
HPD112A08300	FP20PD	8,3	116	136	185	40	10
HPD112A08400	FP20PD	8,4	117	137	185	40	10
HPD112A08500	FP20PD	8,5	117	137	185	40	10
HPD112A08600	FP20PD	8,6	117	137	185	40	10
HPD112A08700	FP20PD	8,7	117	137	185	40	10
HPD112A08800	FP20PD	8,8	117	137	185	40	10
HPD112A08900	FP20PD	8,9	117	137	185	40	10
HPD112A09000	FP20PD	9	118	139	185	40	10
HPD112A09100	FP20PD	9,1	118	139	185	40	10
HPD112A09200	FP20PD	9,2	118	139	185	40	10
HPD112A09300	FP20PD	9,3	118	139	185	40	10

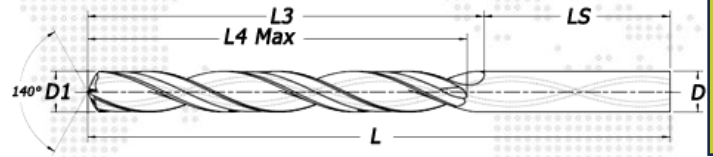
High Performance Drill - 12xD



112A – Internal Coolant



- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance m7.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD112A09400	FP20PD	9,4	118	139	185	40	10
HPD112A09500	FP20PD	9,5	118	139	185	40	10
HPD112A09600	FP20PD	9,6	120	142	185	40	10
HPD112A09700	FP20PD	9,7	120	142	185	40	10
HPD112A09800	FP20PD	9,8	120	142	185	40	10
HPD112A09900	FP20PD	9,9	120	142	185	40	10
HPD112A10000	FP20PD	10	120	142	185	40	10
HPD112A10100	FP20PD	10,1	140	164	218	40	12
HPD112A10200	FP20PD	10,2	140	164	218	40	12
HPD112A10300	FP20PD	10,3	141	165	218	40	12
HPD112A10400	FP20PD	10,4	141	165	218	40	12
HPD112A10500	FP20PD	10,5	141	165	218	40	12
HPD112A10600	FP20PD	10,6	141	165	218	40	12
HPD112A10700	FP20PD	10,7	141	165	218	40	12
HPD112A10800	FP20PD	10,8	141	165	218	40	12
HPD112A10900	FP20PD	10,9	141	165	218	40	12
HPD112A11000	FP20PD	11	142	167	218	40	12
HPD112A11100	FP20PD	11,1	142	167	218	40	12
HPD112A11200	FP20PD	11,2	142	167	218	40	12
HPD112A11300	FP20PD	11,3	142	167	218	40	12
HPD112A11400	FP20PD	11,4	142	167	218	40	12
HPD112A11500	FP20PD	11,5	143	168	218	40	12
HPD112A11600	FP20PD	11,6	143	168	218	40	12
HPD112A11700	FP20PD	11,7	143	168	218	40	12
HPD112A11800	FP20PD	11,8	143	168	218	40	12
HPD112A11900	FP20PD	11,9	143	168	218	40	12
HPD112A12000	FP20PD	12	145	170	218	40	12

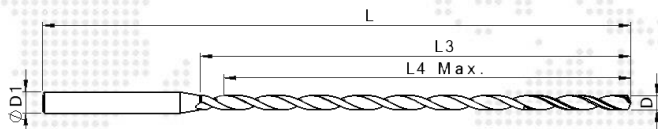
High Performance Drill - 15xD



115A – Internal Coolant



- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance h7.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD115A02000	FP20PD	2	35	42	86	38	4
HPD115A02100	FP20PD	2,1	35	42	86	38	4
HPD115A02200	FP20PD	2,2	35	42	86	38	4
HPD115A02300	FP20PD	2,3	35	42	86	38	4
HPD115A02400	FP20PD	2,4	44	51	86	30	4
HPD115A02500	FP20PD	2,5	44	51	86	30	4
HPD115A02600	FP20PD	2,6	44	51	86	30	4
HPD115A02700	FP20PD	2,7	44	51	86	30	4
HPD115A02800	FP20PD	2,8	44	51	86	30	4
HPD115A02900	FP20PD	2,9	44	51	86	30	4

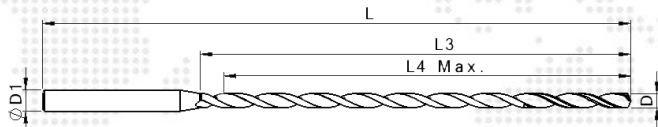
High Performance Drill - 15xD



115A – Internal Coolant



- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance h7.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD115A03000	FP20PD	3	45	53	86	32	4
HPD115A03100	FP20PD	3,1	59	68	105	35	4
HPD115A03200	FP20PD	3,2	59	68	105	35	4
HPD115A03300	FP20PD	3,3	59	68	105	35	4
HPD115A03400	FP20PD	3,4	59	68	105	35	4
HPD115A03500	FP20PD	3,5	59	68	105	35	4
HPD115A03600	FP20PD	3,6	59	68	105	35	4
HPD115A03700	FP20PD	3,7	59	68	105	35	4
HPD115A03800	FP20PD	3,8	60	70	105	35	4
HPD115A03900	FP20PD	3,9	60	70	105	35	4
HPD115A04000	FP20PD	4	60	70	105	35	4
HPD115A04100	FP20PD	4,1	74	85	124	35	6
HPD115A04200	FP20PD	4,2	74	85	124	35	6
HPD115A04300	FP20PD	4,3	74	85	124	35	6
HPD115A04400	FP20PD	4,4	74	85	124	35	6
HPD115A04500	FP20PD	4,5	74	85	124	35	6
HPD115A04600	FP20PD	4,6	74	85	124	35	6
HPD115A04700	FP20PD	4,7	74	85	124	35	6
HPD115A04800	FP20PD	4,8	74	85	124	35	6
HPD115A04900	FP20PD	4,9	74	85	124	35	6
HPD115A05000	FP20PD	5	74	85	124	35	6
HPD115A05100	FP20PD	5,1	88	102	143	40	6
HPD115A05200	FP20PD	5,2	88	102	143	40	6
HPD115A05300	FP20PD	5,3	88	102	143	40	6
HPD115A05400	FP20PD	5,4	88	102	143	40	6
HPD115A05500	FP20PD	5,5	88	102	143	40	6
HPD115A05600	FP20PD	5,6	88	102	143	40	6
HPD115A05700	FP20PD	5,7	88	102	143	40	6
HPD115A05800	FP20PD	5,8	88	102	143	40	6
HPD115A05900	FP20PD	5,9	89	102	143	40	6
HPD115A06000	FP20PD	6	90	104	143	40	6
HPD115A06100	FP20PD	6,1	103	118	162	40	8

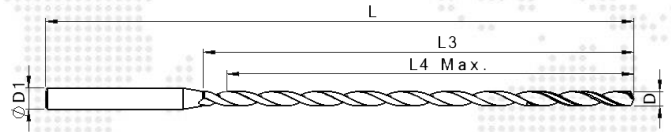
High Performance Drill - 15xD



115A – Internal Coolant



- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance h7.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD115A06200	FP20PD	6,2	103	118	162	40	8
HPD115A06300	FP20PD	6,3	103	118	162	40	8
HPD115A06400	FP20PD	6,4	103	118	162	40	8
HPD115A06500	FP20PD	6,5	103	118	162	40	8
HPD115A06600	FP20PD	6,6	105	120	162	40	8
HPD115A06700	FP20PD	6,7	105	120	162	40	8
HPD115A06800	FP20PD	6,8	105	120	162	40	8
HPD115A06900	FP20PD	6,9	105	120	162	40	8
HPD115A07000	FP20PD	7	105	120	162	40	8
HPD115A07100	FP20PD	7,1	118	135	181	40	8
HPD115A07200	FP20PD	7,2	118	135	181	40	8
HPD115A07300	FP20PD	7,3	118	135	181	40	8
HPD115A07400	FP20PD	7,4	118	135	181	40	8
HPD115A07500	FP20PD	7,5	118	135	181	40	8
HPD115A07600	FP20PD	7,6	119	135	181	40	8
HPD115A07700	FP20PD	7,7	119	135	181	40	8
HPD115A07800	FP20PD	7,8	119	135	181	40	8
HPD115A07900	FP20PD	7,9	119	135	181	40	8
HPD115A08000	FP20PD	8	120	135	181	40	8
HPD115A08100	FP20PD	8,1	134	153	200	40	10
HPD115A08200	FP20PD	8,2	134	153	200	40	10
HPD115A08300	FP20PD	8,3	134	153	200	40	10
HPD115A08400	FP20PD	8,4	134	153	200	40	8
HPD115A08500	FP20PD	8,5	134	153	200	40	8
HPD115A08600	FP20PD	8,6	134	153	200	40	8
HPD115A08700	FP20PD	8,7	134	153	200	40	8
HPD115A08800	FP20PD	8,8	134	153	200	40	8
HPD115A08900	FP20PD	8,9	134	153	200	40	8
HPD115A09000	FP20PD	9	134	153	200	40	8
HPD115A09100	FP20PD	9,1	149	170	219	40	8
HPD115A09200	FP20PD	9,2	149	170	219	40	8
HPD115A09300	FP20PD	9,3	149	170	219	40	8

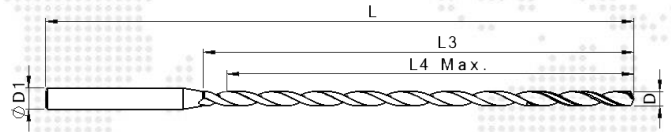
High Performance Drill - 15xD



115A – Internal Coolant



- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance h7.
- Additional styles and coatings made-to-order.



DRILL

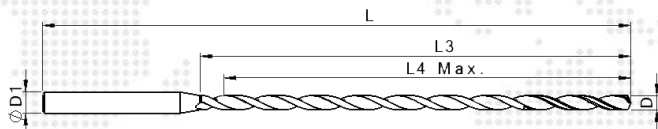
Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD115A09400	FP20PD	9,4	149	170	219	40	8
HPD115A09500	FP20PD	9,5	149	170	219	40	8
HPD115A09600	FP20PD	9,6	149	170	219	40	8
HPD115A09700	FP20PD	9,7	149	170	219	40	8
HPD115A09800	FP20PD	9,8	149	170	219	40	8
HPD115A09900	FP20PD	9,9	149	170	219	40	10
HPD115A10000	FP20PD	10	149	170	219	40	10
HPD115A09400	FP20PD	9,4	149	170	219	40	8
HPD115A09500	FP20PD	9,5	149	170	219	40	8
HPD115A09600	FP20PD	9,6	149	170	219	40	8
HPD115A09700	FP20PD	9,7	149	170	219	40	8
HPD115A09800	FP20PD	9,8	149	170	219	40	8
HPD115A09900	FP20PD	9,9	149	170	219	40	10
HPD115A10000	FP20PD	10	149	170	219	40	10

High Performance Drill - 20xD

120A – Internal Coolant



- Single margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance h7.
- Additional styles and coatings made-to-order.



DRILL

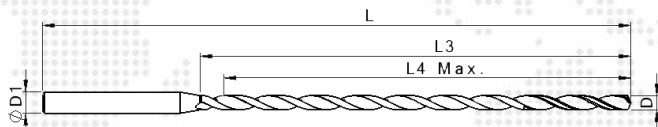
Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD120A02000	FP20PD	2	46	53	92	36	4
HPD120A02100	FP20PD	2,1	46	53	92	36	4
HPD120A02200	FP20PD	2,2	46	53	92	36	4
HPD120A02300	FP20PD	2,3	46	53	92	36	4
HPD120A02400	FP20PD	2,4	56	63	101	36	4
HPD120A02500	FP20PD	2,5	56	63	101	36	4
HPD120A02600	FP20PD	2,6	56	63	101	36	4
HPD120A02700	FP20PD	2,7	56	63	101	36	4
HPD120A02800	FP20PD	2,8	56	63	101	36	4
HPD120A02900	FP20PD	2,9	56	63	101	36	4

High Performance Drill - 20xD

120A – Internal Coolant



- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance h7.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD120A03000	FP20PD	3	60	66	101	33	4
HPD120A03100	FP20PD	3,1	62	68	103	33	4
HPD120A03200	FP20PD	3,2	64	70	105	33	4
HPD120A03300	FP20PD	3,3	66	73	108	33	4
HPD120A03400	FP20PD	3,4	68	75	110	33	4
HPD120A03500	FP20PD	3,5	70	77	112	33	4
HPD120A03600	FP20PD	3,6	72	79	114	33	4
HPD120A03700	FP20PD	3,7	74	81	116	33	4
HPD120A03800	FP20PD	3,8	76	84	119	33	4
HPD120A03900	FP20PD	3,9	78	86	121	33	4
HPD120A04000	FP20PD	4	80	88	123	33	4
HPD120A04100	FP20PD	4,1	82	90	127	35	6
HPD120A04200	FP20PD	4,2	84	92	129	35	6
HPD120A04300	FP20PD	4,3	86	95	132	35	6
HPD120A04400	FP20PD	4,4	88	97	134	35	6
HPD120A04500	FP20PD	4,5	90	99	136	35	6
HPD120A04600	FP20PD	4,6	92	101	138	35	6
HPD120A04700	FP20PD	4,7	94	103	140	35	6
HPD120A04800	FP20PD	4,8	96	106	143	35	6
HPD120A04900	FP20PD	4,9	98	108	145	35	6
HPD120A05000	FP20PD	5	100	110	147	35	6
HPD120A05100	FP20PD	5,1	102	112	150	36	6
HPD120A05200	FP20PD	5,2	104	114	152	36	6
HPD120A05300	FP20PD	5,3	106	117	155	36	6
HPD120A05400	FP20PD	5,4	108	119	157	36	6
HPD120A05500	FP20PD	5,5	110	121	159	36	6
HPD120A05600	FP20PD	5,6	112	123	161	36	6
HPD120A05700	FP20PD	5,7	114	125	163	36	6
HPD120A05800	FP20PD	5,8	116	128	166	36	6
HPD120A05900	FP20PD	5,9	118	130	168	36	6
HPD120A06000	FP20PD	6	120	132	170	36	6
HPD120A06100	FP20PD	6,1	122	134	174	38	8

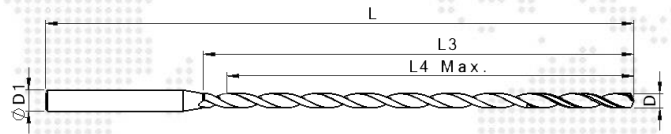
High Performance Drill - 20xD



120A – Internal Coolant



- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance h7.
- Additional styles and coatings made-to-order.



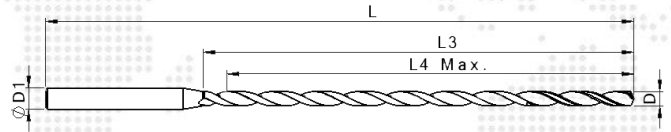
DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD120A06200	FP20PD	6,2	124	136	176	38	8
HPD120A06300	FP20PD	6,3	126	139	179	38	8
HPD120A06400	FP20PD	6,4	128	141	181	38	8
HPD120A06500	FP20PD	6,5	130	143	183	38	8
HPD120A06600	FP20PD	6,6	132	145	185	38	8
HPD120A06700	FP20PD	6,7	134	147	187	38	8
HPD120A06800	FP20PD	6,8	136	150	190	38	8
HPD120A06900	FP20PD	6,9	138	152	192	38	8
HPD120A07000	FP20PD	7	140	154	194	38	8
HPD120A07100	FP20PD	7,1	142	156	198	40	8
HPD120A07200	FP20PD	7,2	144	158	200	40	8
HPD120A07300	FP20PD	7,3	146	161	203	40	8
HPD120A07400	FP20PD	7,4	148	163	205	40	8
HPD120A07500	FP20PD	7,5	150	165	207	40	8
HPD120A07600	FP20PD	7,6	152	167	209	40	8
HPD120A07700	FP20PD	7,7	154	169	211	40	8
HPD120A07800	FP20PD	7,8	156	172	214	40	8
HPD120A07900	FP20PD	7,9	158	174	216	40	8
HPD120A08000	FP20PD	8	160	176	218	40	8

High Performance Drill - 25xD

125A – Internal Coolant

- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance h7.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD125A03000	FP20PD	3	75	81	123	40	4
HPD125A03100	FP20PD	3,1	134	147	187	38	4
HPD125A03200	FP20PD	3,2	136	150	190	38	4
HPD125A03300	FP20PD	3,3	138	152	192	38	4
HPD125A03400	FP20PD	3,4	140	154	194	38	4
HPD125A03500	FP20PD	3,5	142	156	198	40	4
HPD125A03600	FP20PD	3,6	144	158	200	40	4
HPD125A03700	FP20PD	3,7	146	161	203	40	4
HPD125A03800	FP20PD	3,8	148	163	205	40	4
HPD125A03900	FP20PD	3,9	150	165	207	40	4
HPD125A04000	FP20PD	4	152	167	209	40	4
HPD125A04100	FP20PD	4,1	154	169	211	40	6
HPD125A04200	FP20PD	4,2	156	172	214	40	6
HPD125A04300	FP20PD	4,3	158	174	216	40	6
HPD125A04400	FP20PD	4,4	160	176	218	40	6
HPD125A04500	FP20PD	4,5	75	81	123	40	6
HPD125A04600	FP20PD	4,6	77,5	84	126	40	6
HPD125A04700	FP20PD	4,7	80	86	128	40	6
HPD125A04800	FP20PD	4,8	120	130	172	40	6
HPD125A04900	FP20PD	4,9	122,5	132	174	40	6
HPD125A05000	FP20PD	5	125	135	177	40	6
HPD125A05100	FP20PD	5,1	127,5	138	180	40	6
HPD125A05200	FP20PD	5,2	130	140	182	40	6
HPD125A05300	FP20PD	5,3	132,5	143	185	40	6
HPD125A05400	FP20PD	5,4	135	146	188	40	6
HPD125A05500	FP20PD	5,5	137,5	149	191	40	6
HPD125A05600	FP20PD	5,6	140	151	193	40	6
HPD125A05700	FP20PD	5,7	142,5	154	196	40	6
HPD125A05800	FP20PD	5,8	145	157	199	40	6
HPD125A05900	FP20PD	5,9	147,5	159	201	40	6
HPD125A06000	FP20PD	6	150	162	204	40	6
HPD125A06100	FP20PD	6,1	152,5	165	207	40	8

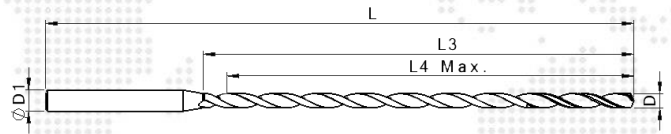
High Performance Drill - 25xD



125A – Internal Coolant



- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Cutting diameter tolerance h7.
- Additional styles and coatings made-to-order.



DRILL

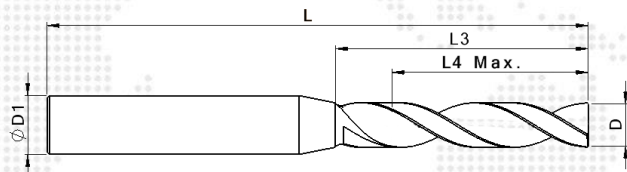
Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD125A06200	FP20PD	6,2	155	167	209	40	8
HPD125A06300	FP20PD	6,3	157,5	170	212	40	8
HPD125A06400	FP20PD	6,4	160	173	215	40	8
HPD125A06500	FP20PD	6,5	162,5	176	218	40	8

High Performance Flat Bottom Drill - 3xD

603A – External Coolant

604A – Internal Coolant

- Available for 5xD, 8xD, 10xD and 12xD hole depths.
- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Application specific FL Drills design to reduce the number of operations when: 1) a flat bottom hole is needed, eliminating the needs of an additional End Mill; 2) is necessary the preparation on an inclined or curved surface.
- Cutting diameter tolerance m7.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD603A03000	FP20PD	3	14	20	62	36	6
HPD604A03000	FP20PD	3	14	20	62	36	6
HPD603A03100	FP20PD	3,1	14	20	62	36	6
HPD604A03100	FP20PD	3,1	14	20	62	36	6
HPD603A03200	FP20PD	3,2	14	20	62	36	6
HPD604A03200	FP20PD	3,2	14	20	62	36	6
HPD603A03300	FP20PD	3,3	14	20	62	36	6
HPD604A03300	FP20PD	3,3	14	20	62	36	6
HPD603A03400	FP20PD	3,4	14	20	62	36	6
HPD604A03400	FP20PD	3,4	14	20	62	36	6
HPD603A03500	FP20PD	3,5	14	20	62	36	6
HPD604A03500	FP20PD	3,5	14	20	62	36	6
HPD603A03600	FP20PD	3,6	14	20	62	36	6
HPD604A03600	FP20PD	3,6	14	20	62	36	6
HPD603A03700	FP20PD	3,7	14	20	62	36	6
HPD604A03700	FP20PD	3,7	14	20	62	36	6
HPD603A03800	FP20PD	3,8	17	24	66	36	6
HPD603A03800	FP20PD	3,8	17	24	66	36	6
HPD603A03900	FP20PD	3,9	17	24	66	36	6
HPD604A03900	FP20PD	3,9	17	24	66	36	6
HPD603A04000	FP20PD	4	17	24	66	36	6
HPD604A04000	FP20PD	4	17	24	66	36	6
HPD603A04100	FP20PD	4,1	17	24	66	36	6
HPD604A04100	FP20PD	4,1	17	24	66	36	6
HPD603A04200	FP20PD	4,2	17	24	66	36	6
HPD604A04200	FP20PD	4,2	17	24	66	36	6
HPD603A04300	FP20PD	4,3	17	24	66	36	6
HPD604A04300	FP20PD	4,3	17	24	66	36	6
HPD603A04400	FP20PD	4,4	17	24	66	36	6
HPD604A04400	FP20PD	4,4	17	24	66	36	6
HPD603A04500	FP20PD	4,5	17	24	66	36	6
HPD604A04500	FP20PD	4,5	17	24	66	36	6

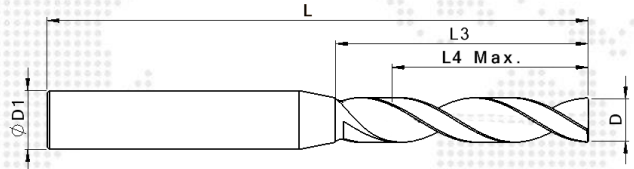
High Performance Flat Bottom Drill - 3xD



603A – External Coolant

604A – Internal Coolant

- Available for 5xD, 8xD, 10xD and 12xD hole depths.
- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Application specific FL Drills design to reduce the number of operations when: 1) a flat bottom hole is needed, eliminating the needs of an additional End Mill; 2) is necessary the preparation on an inclined or curved surface.
- Cutting diameter tolerance m7.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD603A04600	FP20PD	4,6	17	24	66	36	6
HPD604A04600	FP20PD	4,6	17	24	66	36	6
HPD603A04700	FP20PD	4,7	17	24	66	36	6
HPD604A04700	FP20PD	4,7	17	24	66	36	6
HPD603A04800	FP20PD	4,8	20	28	66	36	6
HPD604A04800	FP20PD	4,8	20	28	66	36	6
HPD603A04900	FP20PD	4,9	20	28	66	36	6
HPD604A04900	FP20PD	4,9	20	28	66	36	6
HPD603A05000	FP20PD	5	20	28	66	36	6
HPD604A05000	FP20PD	5	20	28	66	36	6
HPD603A05100	FP20PD	5,1	20	28	66	36	6
HPD604A05100	FP20PD	5,1	20	28	66	36	6
HPD603A05200	FP20PD	5,2	20	28	66	36	6
HPD604A05200	FP20PD	5,2	20	28	66	36	6
HPD603A05300	FP20PD	5,3	20	28	66	36	6
HPD604A05300	FP20PD	5,3	20	28	66	36	6
HPD603A05400	FP20PD	5,4	20	28	66	36	6
HPD604A05400	FP20PD	5,4	20	28	66	36	6
HPD603A05500	FP20PD	5,5	20	28	66	36	6
HPD604A05500	FP20PD	5,5	20	28	66	36	6
HPD603A05600	FP20PD	5,6	20	28	66	36	6
HPD604A05600	FP20PD	5,6	20	28	66	36	6
HPD603A05700	FP20PD	5,7	20	28	66	36	6
HPD604A05700	FP20PD	5,7	20	28	66	36	6
HPD603A05800	FP20PD	5,8	20	28	66	36	6
HPD604A05800	FP20PD	5,8	20	28	66	36	6
HPD603A05900	FP20PD	5,9	20	28	66	36	6
HPD604A05900	FP20PD	5,9	20	28	66	36	6
HPD603A06000	FP20PD	6	20	28	66	36	6
HPD604A06000	FP20PD	6	20	28	66	36	6
HPD603A06100	FP20PD	6,1	24	34	79	36	8
HPD604A06100	FP20PD	6,1	24	34	79	36	8

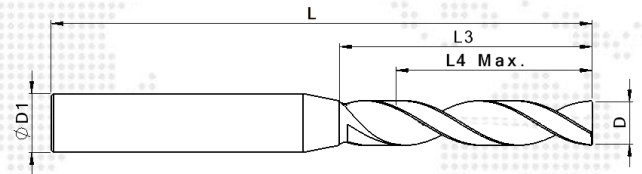
High Performance Flat Bottom Drill - 3xD



603A – External Coolant

604A – Internal Coolant

- Available for 5xD, 8xD, 10xD and 12xD hole depths.
- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Application specific FL Drills design to reduce the number of operations when: 1) a flat bottom hole is needed, eliminating the needs of an additional End Mill; 2) is necessary the preparation on an inclined or curved surface.
- Cutting diameter tolerance m7.
- Additional styles and coatings made-to-order.



DRILL

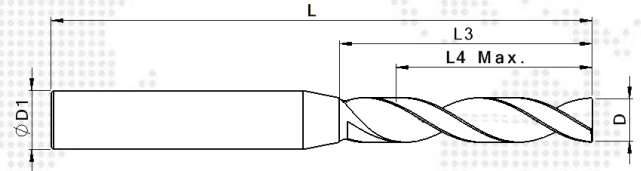
Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD603A06200	FP20PD	6,2	24	34	79	36	8
HPD604A06200	FP20PD	6,2	24	34	79	36	8
HPD603A06300	FP20PD	6,3	24	34	79	36	8
HPD604A06300	FP20PD	6,3	24	34	79	36	8
HPD603A06400	FP20PD	6,4	24	34	79	36	8
HPD604A06400	FP20PD	6,4	24	34	79	36	8
HPD603A06500	FP20PD	6,5	24	34	79	36	8
HPD604A06500	FP20PD	6,5	24	34	79	36	8
HPD603A06600	FP20PD	6,6	24	34	79	36	8
HPD604A06600	FP20PD	6,6	24	34	79	36	8
HPD603A06700	FP20PD	6,7	24	34	79	36	8
HPD604A06700	FP20PD	6,7	24	34	79	36	8
HPD603A06800	FP20PD	6,8	24	34	79	36	8
HPD604A06800	FP20PD	6,8	24	34	79	36	8
HPD603A06900	FP20PD	6,9	24	34	79	36	8
HPD604A06900	FP20PD	6,9	24	34	79	36	8
HPD603A07000	FP20PD	7	24	34	79	36	8
HPD604A07000	FP20PD	7	24	34	79	36	8
HPD603A07100	FP20PD	7,1	29	41	79	36	8
HPD604A07100	FP20PD	7,1	29	41	79	36	8
HPD603A07200	FP20PD	7,2	29	41	79	36	8
HPD604A07200	FP20PD	7,2	29	41	79	36	8
HPD603A07300	FP20PD	7,3	29	41	79	36	8
HPD604A07300	FP20PD	7,3	29	41	79	36	8
HPD603A07400	FP20PD	7,4	29	41	79	36	8
HPD604A07400	FP20PD	7,4	29	41	79	36	8
HPD603A07500	FP20PD	7,5	29	41	79	36	8
HPD604A07500	FP20PD	7,5	29	41	79	36	8
HPD603A07600	FP20PD	7,6	29	41	79	36	8
HPD604A07600	FP20PD	7,6	29	41	79	36	8
HPD603A07700	FP20PD	7,7	29	41	79	36	8
HPD604A07700	FP20PD	7,7	29	41	79	36	8

High Performance Flat Bottom Drill - 3xD **FORNAX** Cutting Tools

603A – External Coolant

604A – Internal Coolant

- Available for 5xD, 8xD, 10xD and 12xD hole depths.
- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Application specific FL Drills design to reduce the number of operations when: 1) a flat bottom hole is needed, eliminating the needs of an additional End Mill; 2) is necessary the preparation on an inclined or curved surface.
- Cutting diameter tolerance m7.
- Additional styles and coatings made-to-order.



DRILL

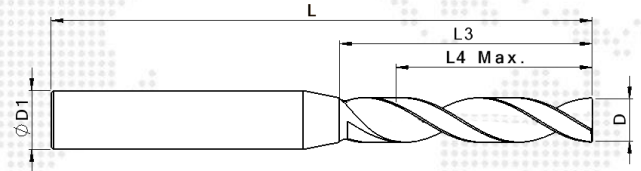
Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD603A07800	FP20PD	7,8	29	41	79	36	8
HPD604A07800	FP20PD	7,8	29	41	79	36	8
HPD603A07900	FP20PD	7,9	29	41	79	36	8
HPD604A07900	FP20PD	7,9	29	41	79	36	8
HPD603A08000	FP20PD	8	29	41	79	36	8
HPD604A08000	FP20PD	8	29	41	79	36	8
HPD603A08100	FP20PD	8,1	35	47	89	40	10
HPD604A08100	FP20PD	8,1	35	47	89	40	10
HPD603A08200	FP20PD	8,2	35	47	89	40	10
HPD604A08200	FP20PD	8,2	35	47	89	40	10
HPD603A08300	FP20PD	8,3	35	47	89	40	10
HPD604A08300	FP20PD	8,3	35	47	89	40	10
HPD603A08400	FP20PD	8,4	35	47	89	40	10
HPD604A08400	FP20PD	8,4	35	47	89	40	10
HPD603A08500	FP20PD	8,5	35	47	89	40	10
HPD604A08500	FP20PD	8,5	35	47	89	40	10
HPD603A08600	FP20PD	8,6	35	47	89	40	10
HPD604A08600	FP20PD	8,6	35	47	89	40	10
HPD603A08700	FP20PD	8,7	35	47	89	40	10
HPD604A08700	FP20PD	8,7	35	47	89	40	10
HPD603A08800	FP20PD	8,8	35	47	89	40	10
HPD604A08800	FP20PD	8,8	35	47	89	40	10
HPD603A08900	FP20PD	8,9	35	47	89	40	10
HPD604A08900	FP20PD	8,9	35	47	89	40	10
HPD603A09000	FP20PD	9	35	47	89	40	10
HPD604A09000	FP20PD	9	35	47	89	40	10
HPD603A09100	FP20PD	9,1	35	47	89	40	10
HPD604A09100	FP20PD	9,1	35	47	89	40	10
HPD603A09200	FP20PD	9,2	35	47	89	40	10
HPD604A09200	FP20PD	9,2	35	47	89	40	10
HPD603A09300	FP20PD	9,3	35	47	89	40	10
HPD604A09300	FP20PD	9,3	35	47	89	40	10

High Performance Flat Bottom Drill - 3xD **FORNAX** Cutting Tools

603A – External Coolant

604A – Internal Coolant

- Available for 5xD, 8xD, 10xD and 12xD hole depths.
- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Application specific FL Drills design to reduce the number of operations when: 1) a flat bottom hole is needed, eliminating the needs of an additional End Mill; 2) is necessary the preparation on an inclined or curved surface.
- Cutting diameter tolerance m7.
- Additional styles and coatings made-to-order.



DRILL

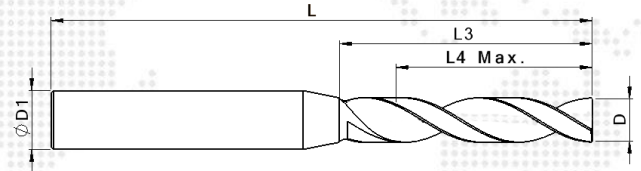
Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD603A09400	FP20PD	9,4	35	47	89	40	10
HPD604A09400	FP20PD	9,4	35	47	89	40	10
HPD603A09500	FP20PD	9,5	35	47	89	40	10
HPD604A09500	FP20PD	9,5	35	47	89	40	10
HPD603A09600	FP20PD	9,6	35	47	89	40	10
HPD604A09600	FP20PD	9,6	35	47	89	40	10
HPD603A09700	FP20PD	9,7	35	47	89	40	10
HPD604A09700	FP20PD	9,7	35	47	89	40	10
HPD603A09800	FP20PD	9,8	35	47	89	40	10
HPD604A09800	FP20PD	9,8	35	47	89	40	10
HPD603A09900	FP20PD	9,9	35	47	89	40	10
HPD604A09900	FP20PD	9,9	35	47	89	40	10
HPD603A10000	FP20PD	10	35	47	89	40	10
HPD604A10000	FP20PD	10	35	47	89	40	10
HPD603A10100	FP20PD	10,1	40	55	102	45	12
HPD604A10100	FP20PD	10,1	40	55	102	45	12
HPD603A10200	FP20PD	10,2	40	55	102	45	12
HPD604A10200	FP20PD	10,2	40	55	102	45	12
HPD603A10300	FP20PD	10,3	40	55	102	45	12
HPD604A10300	FP20PD	10,3	40	55	102	45	12
HPD603A10400	FP20PD	10,4	40	55	102	45	12
HPD604A10400	FP20PD	10,4	40	55	102	45	12
HPD603A10500	FP20PD	10,5	40	55	102	45	12
HPD604A10500	FP20PD	10,5	40	55	102	45	12
HPD603A10600	FP20PD	10,6	40	55	102	45	12
HPD604A10600	FP20PD	10,6	40	55	102	45	12
HPD603A10700	FP20PD	10,7	40	55	102	45	12
HPD604A10700	FP20PD	10,7	40	55	102	45	12
HPD603A10800	FP20PD	10,8	40	55	102	45	12
HPD604A10800	FP20PD	10,8	40	55	102	45	12
HPD603A10900	FP20PD	10,9	40	55	102	45	12
HPD604A10900	FP20PD	10,9	40	55	102	45	12

High Performance Flat Bottom Drill - 3xD **FORNAX** Cutting Tools

603A – External Coolant

604A – Internal Coolant

- Available for 5xD, 8xD, 10xD and 12xD hole depths.
- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Application specific FL Drills design to reduce the number of operations when: 1) a flat bottom hole is needed, eliminating the needs of an additional End Mill; 2) is necessary the preparation on an inclined or curved surface.
- Cutting diameter tolerance m7.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD603A11000	FP20PD	11	40	55	102	45	12
HPD604A11000	FP20PD	11	40	55	102	45	12
HPD603A11100	FP20PD	11,1	40	55	102	45	12
HPD604A11100	FP20PD	11,1	40	55	102	45	12
HPD603A11200	FP20PD	11,2	40	55	102	45	12
HPD604A11200	FP20PD	11,2	40	55	102	45	12
HPD603A11300	FP20PD	11,3	40	55	102	45	12
HPD604A11300	FP20PD	11,3	40	55	102	45	12
HPD603A11400	FP20PD	11,4	40	55	102	45	12
HPD604A11400	FP20PD	11,4	40	55	102	45	12
HPD603A11500	FP20PD	11,5	40	55	102	45	12
HPD604A11500	FP20PD	11,5	40	55	102	45	12
HPD603A11600	FP20PD	11,6	40	55	102	45	12
HPD604A11600	FP20PD	11,6	40	55	102	45	12
HPD603A11700	FP20PD	11,7	40	55	102	45	12
HPD604A11700	FP20PD	11,7	40	55	102	45	12
HPD603A11800	FP20PD	11,8	40	55	102	45	12
HPD604A11800	FP20PD	11,8	40	55	102	45	12
HPD603A11900	FP20PD	11,9	40	55	102	45	12
HPD604A11900	FP20PD	11,9	40	55	102	45	12
HPD603A12000	FP20PD	12	40	55	102	45	12
HPD604A12000	FP20PD	12	40	55	102	45	12
HPD603A12100	FP20PD	12,1	43	60	107	45	14
HPD604A12100	FP20PD	12,1	43	60	107	45	14
HPD603A12200	FP20PD	12,2	43	60	107	45	14
HPD604A12200	FP20PD	12,2	43	60	107	45	14
HPD603A12300	FP20PD	12,3	43	60	107	45	14
HPD604A12300	FP20PD	12,3	43	60	107	45	14
HPD603A12400	FP20PD	12,4	43	60	107	45	14
HPD604A12400	FP20PD	12,4	43	60	107	45	14
HPD603A12500	FP20PD	12,5	43	60	107	45	14
HPD604A12500	FP20PD	12,5	43	60	107	45	14

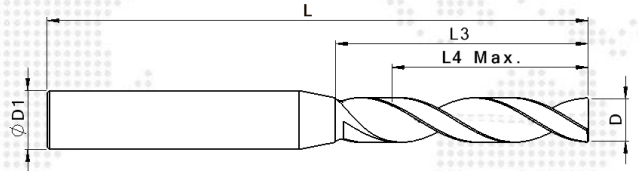
High Performance Flat Bottom Drill - 3xD

FORNAX
Cutting Tools

603A – External Coolant

604A – Internal Coolant

- Available for 5xD, 8xD, 10xD and 12xD hole depths.
- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Application specific FL Drills design to reduce the number of operations when: 1) a flat bottom hole is needed, eliminating the needs of an additional End Mill; 2) is necessary the preparation on an inclined or curved surface.
- Cutting diameter tolerance m7.
- Additional styles and coatings made-to-order.



DRILL

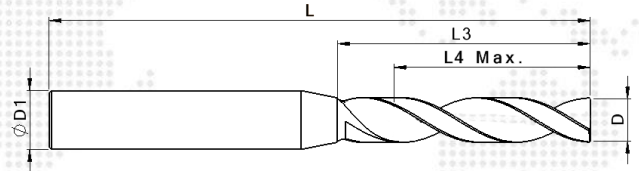
Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD603A12600	FP20PD	12,6	43	60	107	45	14
HPD604A12600	FP20PD	12,6	43	60	107	45	14
HPD603A12700	FP20PD	12,7	43	60	107	45	14
HPD604A12700	FP20PD	12,7	43	60	107	45	14
HPD603A12800	FP20PD	12,8	43	60	107	45	14
HPD604A12800	FP20PD	12,8	43	60	107	45	14
HPD603A12900	FP20PD	12,9	43	60	107	45	14
HPD604A12900	FP20PD	12,9	43	60	107	45	14
HPD603A13000	FP20PD	13	43	60	107	45	14
HPD604A13000	FP20PD	13	43	60	107	45	14
HPD603A13100	FP20PD	13,1	43	60	107	45	14
HPD604A13100	FP20PD	13,1	43	60	107	45	14
HPD603A13200	FP20PD	13,2	43	60	107	45	14
HPD604A13200	FP20PD	13,2	43	60	107	45	14
HPD603A13300	FP20PD	13,3	43	60	107	45	14
HPD604A13300	FP20PD	13,3	43	60	107	45	14
HPD603A13400	FP20PD	13,4	43	60	107	45	14
HPD604A13400	FP20PD	13,4	43	60	107	45	14
HPD603A13500	FP20PD	13,5	43	60	107	45	14
HPD604A13500	FP20PD	13,5	43	60	107	45	14
HPD603A13600	FP20PD	13,6	43	60	107	45	14
HPD604A13600	FP20PD	13,6	43	60	107	45	14
HPD603A13700	FP20PD	13,7	43	60	107	45	14
HPD604A13700	FP20PD	13,7	43	60	107	45	14
HPD603A13800	FP20PD	13,8	43	60	107	45	14
HPD604A13800	FP20PD	13,8	43	60	107	45	14
HPD603A13900	FP20PD	13,9	43	60	107	45	14
HPD604A13900	FP20PD	13,9	43	60	107	45	14
HPD603A14000	FP20PD	14	43	60	107	45	14
HPD604A14000	FP20PD	14	43	60	107	45	14
HPD603A14100	FP20PD	14,1	45	65	115	48	16
HPD604A14100	FP20PD	14,1	45	65	115	48	16

High Performance Flat Bottom Drill - 3xD **FORNAX** Cutting Tools

603A – External Coolant

604A – Internal Coolant

- Available for 5xD, 8xD, 10xD and 12xD hole depths.
- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Application specific FL Drills design to reduce the number of operations when: 1) a flat bottom hole is needed, eliminating the needs of an additional End Mill; 2) is necessary the preparation on an inclined or curved surface.
- Cutting diameter tolerance m7.
- Additional styles and coatings made-to-order.



DRILL

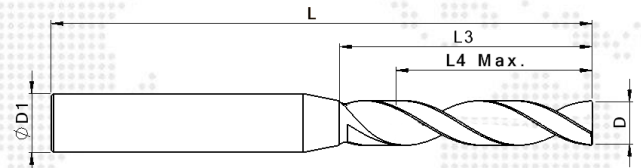
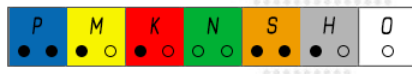
Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD603A14200	FP20PD	14,2	45	65	115	48	16
HPD604A14200	FP20PD	14,2	45	65	115	48	16
HPD603A14300	FP20PD	14,3	45	65	115	48	16
HPD604A14300	FP20PD	14,3	45	65	115	48	16
HPD603A14400	FP20PD	14,4	45	65	115	48	16
HPD604A14400	FP20PD	14,4	45	65	115	48	16
HPD603A14500	FP20PD	14,5	45	65	115	48	16
HPD604A14500	FP20PD	14,5	45	65	115	48	16
HPD603A14600	FP20PD	14,6	45	65	115	48	16
HPD604A14600	FP20PD	14,6	45	65	115	48	16
HPD603A14700	FP20PD	14,7	45	65	115	48	16
HPD604A14700	FP20PD	14,7	45	65	115	48	16
HPD603A14800	FP20PD	14,8	45	65	115	48	16
HPD604A14800	FP20PD	14,8	45	65	115	48	16
HPD603A14900	FP20PD	14,9	45	65	115	48	16
HPD604A14900	FP20PD	14,9	45	65	115	48	16
HPD603A15000	FP20PD	15	45	65	115	48	16
HPD604A15000	FP20PD	15	45	65	115	48	16
HPD603A15100	FP20PD	15,1	45	65	115	48	16
HPD604A15100	FP20PD	15,1	45	65	115	48	16
HPD603A15200	FP20PD	15,2	45	65	115	48	16
HPD604A15200	FP20PD	15,2	45	65	115	48	16
HPD603A15300	FP20PD	15,3	45	65	115	48	16
HPD604A15300	FP20PD	15,3	45	65	115	48	16
HPD603A15400	FP20PD	15,4	45	65	115	48	16
HPD604A15400	FP20PD	15,4	45	65	115	48	16
HPD603A15500	FP20PD	15,5	45	65	115	48	16
HPD604A15500	FP20PD	15,5	45	65	115	48	16
HPD603A15600	FP20PD	15,6	45	65	115	48	16
HPD604A15600	FP20PD	15,6	45	65	115	48	16
HPD603A15700	FP20PD	15,7	45	65	115	48	16
HPD604A15700	FP20PD	15,7	45	65	115	48	16

High Performance Flat Bottom Drill - 3xD **FORNAX** Cutting Tools

603A – External Coolant

604A – Internal Coolant

- Available for 5xD, 8xD, 10xD and 12xD hole depths.
- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Application specific FL Drills design to reduce the number of operations when: 1) a flat bottom hole is needed, eliminating the needs of an additional End Mill; 2) is necessary the preparation on an inclined or curved surface.
- Cutting diameter tolerance m7.
- Additional styles and coatings made-to-order.



DRILL

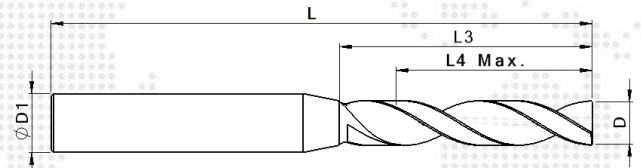
Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD603A15800	FP20PD	15,8	45	65	115	48	16
HPD604A15800	FP20PD	15,8	45	65	115	48	16
HPD603A15900	FP20PD	15,9	45	65	115	48	16
HPD604A15900	FP20PD	15,9	45	65	115	48	16
HPD603A16000	FP20PD	16	45	65	115	48	16
HPD604A16000	FP20PD	16	45	65	115	48	16
HPD603A16100	FP20PD	16,1	51	73	123	48	18
HPD604A16100	FP20PD	16,1	51	73	123	48	18
HPD603A16200	FP20PD	16,2	51	73	123	48	18
HPD604A16200	FP20PD	16,2	51	73	123	48	18
HPD603A16300	FP20PD	16,3	51	73	123	48	18
HPD604A16300	FP20PD	16,3	51	73	123	48	18
HPD603A16400	FP20PD	16,4	51	73	123	48	18
HPD604A16400	FP20PD	16,4	51	73	123	48	18
HPD603A16500	FP20PD	16,5	51	73	123	48	18
HPD604A16500	FP20PD	16,5	51	73	123	48	18
HPD603A16600	FP20PD	16,6	51	73	123	48	18
HPD604A16600	FP20PD	16,6	51	73	123	48	18
HPD603A16700	FP20PD	16,7	51	73	123	48	18
HPD604A16700	FP20PD	16,7	51	73	123	48	18
HPD603A16800	FP20PD	16,8	51	73	123	48	18
HPD604A16800	FP20PD	16,8	51	73	123	48	18
HPD603A16900	FP20PD	16,9	51	73	123	48	18
HPD604A16900	FP20PD	16,9	51	73	123	48	18
HPD603A17000	FP20PD	17	51	73	123	48	18
HPD604A17000	FP20PD	17	51	73	123	48	18
HPD603A17100	FP20PD	17,1	51	73	123	48	18
HPD604A17100	FP20PD	17,1	51	73	123	48	18
HPD603A17200	FP20PD	17,2	51	73	123	48	18
HPD604A17200	FP20PD	17,2	51	73	123	48	18
HPD603A17300	FP20PD	17,3	51	73	123	48	18
HPD604A17300	FP20PD	17,3	51	73	123	48	18

High Performance Flat Bottom Drill - 3xD **FORNAX** Cutting Tools

603A – External Coolant

604A – Internal Coolant

- Available for 5xD, 8xD, 10xD and 12xD hole depths.
- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Application specific FL Drills design to reduce the number of operations when: 1) a flat bottom hole is needed, eliminating the needs of an additional End Mill; 2) is necessary the preparation on an inclined or curved surface.
- Cutting diameter tolerance m7.
- Additional styles and coatings made-to-order.



DRILL

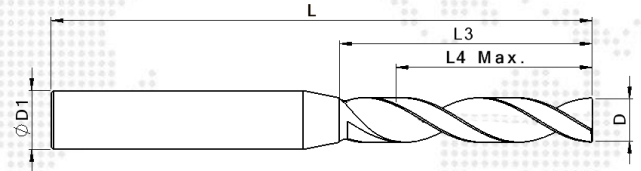
Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD603A17400	FP20PD	17,4	51	73	123	48	18
HPD604A17400	FP20PD	17,4	51	73	123	48	18
HPD603A17500	FP20PD	17,5	51	73	123	48	18
HPD604A17500	FP20PD	17,5	51	73	123	48	18
HPD603A17600	FP20PD	17,6	51	73	123	48	18
HPD604A17600	FP20PD	17,6	51	73	123	48	18
HPD603A17700	FP20PD	17,7	51	73	123	48	18
HPD604A17700	FP20PD	17,7	51	73	123	48	18
HPD603A17800	FP20PD	17,8	51	73	123	48	18
HPD604A17800	FP20PD	17,8	51	73	123	48	18
HPD603A17900	FP20PD	17,9	51	73	123	48	18
HPD604A17900	FP20PD	17,9	51	73	123	48	18
HPD603A18000	FP20PD	18	51	73	123	48	18
HPD604A18000	FP20PD	18	51	73	123	48	18
HPD603A18100	FP20PD	18,1	55	79	131	50	20
HPD604A18100	FP20PD	18,1	55	79	131	50	20
HPD603A18200	FP20PD	18,2	55	79	131	50	20
HPD604A18200	FP20PD	18,2	55	79	131	50	20
HPD603A18300	FP20PD	18,3	55	79	131	50	20
HPD604A18300	FP20PD	18,3	55	79	131	50	20
HPD603A18400	FP20PD	18,4	55	79	131	50	20
HPD604A18400	FP20PD	18,4	55	79	131	50	20
HPD603A18500	FP20PD	18,5	55	79	131	50	20
HPD604A18500	FP20PD	18,5	55	79	131	50	20
HPD603A18600	FP20PD	18,6	55	79	131	50	20
HPD604A18600	FP20PD	18,6	55	79	131	50	20
HPD603A18700	FP20PD	18,7	55	79	131	50	20
HPD604A18700	FP20PD	18,7	55	79	131	50	20
HPD603A18800	FP20PD	18,8	55	79	131	50	20
HPD604A18800	FP20PD	18,8	55	79	131	50	20
HPD603A18900	FP20PD	18,9	55	79	131	50	20
HPD604A18900	FP20PD	18,9	55	79	131	50	20

High Performance Flat Bottom Drill - 3xD **FORNAX** Cutting Tools

603A – External Coolant

604A – Internal Coolant

- Available for 5xD, 8xD, 10xD and 12xD hole depths.
- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- You can perform your operations with High Performance drills. However, if you want to advance in a particular material, you can choose -specific (geometry, rod and dragfinishing) drills.
- Application specific FL Drills design to reduce the number of operations when: 1) a flat bottom hole is needed, eliminating the needs of an additional End Mill; 2) is necessary the preparation on an inclined or curved surface.
- Cutting diameter tolerance m7.
- Additional styles and coatings made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD603A19000	FP20PD	19	55	79	131	50	20
HPD604A19000	FP20PD	19	55	79	131	50	20
HPD603A19100	FP20PD	19,1	55	79	131	50	20
HPD604A19100	FP20PD	19,1	55	79	131	50	20
HPD603A19200	FP20PD	19,2	55	79	131	50	20
HPD604A19200	FP20PD	19,2	55	79	131	50	20
HPD603A19300	FP20PD	19,3	55	79	131	50	20
HPD604A19300	FP20PD	19,3	55	79	131	50	20
HPD603A19400	FP20PD	19,4	55	79	131	50	20
HPD604A19400	FP20PD	19,4	55	79	131	50	20
HPD603A19500	FP20PD	19,5	55	79	131	50	20
HPD604A19500	FP20PD	19,5	55	79	131	50	20
HPD603A19600	FP20PD	19,6	55	79	131	50	20
HPD604A19600	FP20PD	19,6	55	79	131	50	20
HPD603A19700	FP20PD	19,7	55	79	131	50	20
HPD604A19700	FP20PD	19,7	55	79	131	50	20
HPD603A19800	FP20PD	19,8	55	79	131	50	20
HPD604A19800	FP20PD	19,8	55	79	131	50	20
HPD603A19900	FP20PD	19,9	55	79	131	50	20
HPD604A19900	FP20PD	19,9	55	79	131	50	20
HPD603A20000	FP20PD	20	55	79	131	50	20
HPD604A20000	FP20PD	20	55	79	131	50	20

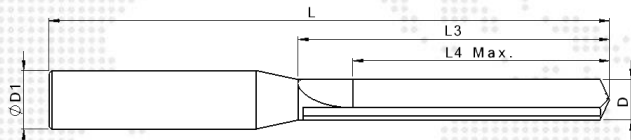
Straight Flute Drill - 3xD

703A – External Coolant

704A – Internal Coolant



- Drill for Non-Ferrous and Cast Iron Materials.
- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- Available for 5xD, 8xD, 10xD and 12xD hole depths.
- Cutting diameter tolerance m7
- Additional styles made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD703A03000	Polishing	3	14	20	62	36	6
HPD704A03000	Polishing	3	14	20	62	36	6
HPD703A03100	Polishing	3,1	14	20	62	36	6
HPD704A03100	Polishing	3,1	14	20	62	36	6
HPD703A03200	Polishing	3,2	14	20	62	36	6
HPD704A03200	Polishing	3,2	14	20	62	36	6
HPD703A03300	Polishing	3,3	14	20	62	36	6
HPD704A03300	Polishing	3,3	14	20	62	36	6
HPD703A03400	Polishing	3,4	14	20	62	36	6
HPD704A03400	Polishing	3,4	14	20	62	36	6
HPD703A03500	Polishing	3,5	14	20	62	36	6
HPD704A03500	Polishing	3,5	14	20	62	36	6
HPD703A03600	Polishing	3,6	14	20	62	36	6
HPD704A03600	Polishing	3,6	14	20	62	36	6
HPD703A03700	Polishing	3,7	14	20	62	36	6
HPD704A03700	Polishing	3,7	14	20	62	36	6
HPD703A03800	Polishing	3,8	17	24	66	36	6
HPD704A03800	Polishing	3,8	17	24	66	36	6
HPD703A03900	Polishing	3,9	17	24	66	36	6
HPD704A03900	Polishing	3,9	17	24	66	36	6
HPD703A04000	Polishing	4	17	24	66	36	6
HPD704A04000	Polishing	4	17	24	66	36	6
HPD703A04100	Polishing	4,1	17	24	66	36	6
HPD704A04100	Polishing	4,1	17	24	66	36	6
HPD703A04200	Polishing	4,2	17	24	66	36	6
HPD704A04200	Polishing	4,2	17	24	66	36	6
HPD703A04300	Polishing	4,3	17	24	66	36	6
HPD704A04300	Polishing	4,3	17	24	66	36	6
HPD703A04400	Polishing	4,4	17	24	66	36	6
HPD704A04400	Polishing	4,4	17	24	66	36	6
HPD703A04500	Polishing	4,5	17	24	66	36	6
HPD704A04500	Polishing	4,5	17	24	66	36	6

Straight Flute Drill - 3xD

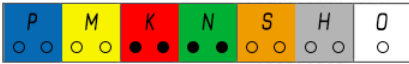
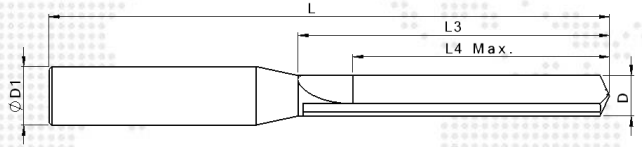
FORNAX
Cutting Tools

703A – External Coolant

704A – Internal Coolant



- Drill for Non-Ferrous and Cast Iron Materials.
- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- Available for 5xD, 8xD, 10xD and 12xD hole depths.
- Cutting diameter tolerance m7
- Additional styles made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD703A04600	Polishing	4,6	17	24	66	36	6
HPD704A04600	Polishing	4,6	17	24	66	36	6
HPD703A04700	Polishing	4,7	17	24	66	36	6
HPD704A04700	Polishing	4,7	17	24	66	36	6
HPD703A04800	Polishing	4,8	20	28	66	36	6
HPD704A04800	Polishing	4,8	20	28	66	36	6
HPD703A04900	Polishing	4,9	20	28	66	36	6
HPD704A04900	Polishing	4,9	20	28	66	36	6
HPD703A05000	Polishing	5	20	28	66	36	6
HPD704A05000	Polishing	5	20	28	66	36	6
HPD703A05100	Polishing	5,1	20	28	66	36	6
HPD704A05100	Polishing	5,1	20	28	66	36	6
HPD703A05200	Polishing	5,2	20	28	66	36	6
HPD704A05200	Polishing	5,2	20	28	66	36	6
HPD703A05300	Polishing	5,3	20	28	66	36	6
HPD704A05300	Polishing	5,3	20	28	66	36	6
HPD703A05400	Polishing	5,4	20	28	66	36	6
HPD704A05400	Polishing	5,4	20	28	66	36	6
HPD703A05500	Polishing	5,5	20	28	66	36	6
HPD704A05500	Polishing	5,5	20	28	66	36	6
HPD703A05600	Polishing	5,6	20	28	66	36	6
HPD704A05600	Polishing	5,6	20	28	66	36	6
HPD703A05700	Polishing	5,7	20	28	66	36	6
HPD704A05700	Polishing	5,7	20	28	66	36	6
HPD703A05800	Polishing	5,8	20	28	66	36	6
HPD704A05800	Polishing	5,8	20	28	66	36	6
HPD703A05900	Polishing	5,9	20	28	66	36	6
HPD704A05900	Polishing	5,9	20	28	66	36	6
HPD703A06000	Polishing	6	20	28	66	36	6
HPD704A06000	Polishing	6	20	28	66	36	6
HPD703A06100	Polishing	6,1	24	34	79	36	8
HPD704A06100	Polishing	6,1	24	34	79	36	8

Straight Flute Drill - 3xD

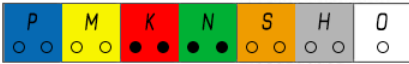
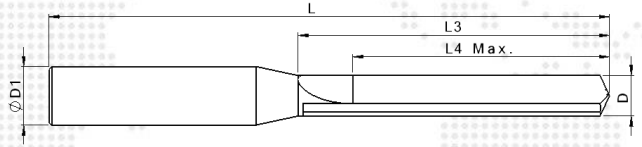
FORNAX
Cutting Tools

703A – External Coolant

704A – Internal Coolant



- Drill for Non-Ferrous and Cast Iron Materials.
- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- Available for 5xD, 8xD, 10xD and 12xD hole depths.
- Cutting diameter tolerance m7
- Additional styles made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD703A06200	Polishing	6,2	24	34	79	36	8
HPD704A06200	Polishing	6,2	24	34	79	36	8
HPD703A06300	Polishing	6,3	24	34	79	36	8
HPD704A06300	Polishing	6,3	24	34	79	36	8
HPD703A06400	Polishing	6,4	24	34	79	36	8
HPD704A06400	Polishing	6,4	24	34	79	36	8
HPD703A06500	Polishing	6,5	24	34	79	36	8
HPD704A06500	Polishing	6,5	24	34	79	36	8
HPD703A06600	Polishing	6,6	24	34	79	36	8
HPD704A06600	Polishing	6,6	24	34	79	36	8
HPD703A06700	Polishing	6,7	24	34	79	36	8
HPD704A06700	Polishing	6,7	24	34	79	36	8
HPD703A06800	Polishing	6,8	24	34	79	36	8
HPD704A06800	Polishing	6,8	24	34	79	36	8
HPD703A06900	Polishing	6,9	24	34	79	36	8
HPD704A06900	Polishing	6,9	24	34	79	36	8
HPD703A07000	Polishing	7	24	34	79	36	8
HPD704A07000	Polishing	7	24	34	79	36	8
HPD703A07100	Polishing	7,1	29	41	79	36	8
HPD704A07100	Polishing	7,1	29	41	79	36	8
HPD703A07200	Polishing	7,2	29	41	79	36	8
HPD704A07200	Polishing	7,2	29	41	79	36	8
HPD703A07300	Polishing	7,3	29	41	79	36	8
HPD704A07300	Polishing	7,3	29	41	79	36	8
HPD703A07400	Polishing	7,4	29	41	79	36	8
HPD704A07400	Polishing	7,4	29	41	79	36	8
HPD703A07500	Polishing	7,5	29	41	79	36	8
HPD704A07500	Polishing	7,5	29	41	79	36	8
HPD703A07600	Polishing	7,6	29	41	79	36	8
HPD704A07600	Polishing	7,6	29	41	79	36	8
HPD703A07700	Polishing	7,7	29	41	79	36	8
HPD704A07700	Polishing	7,7	29	41	79	36	8

Straight Flute Drill - 3xD

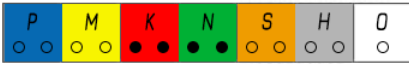
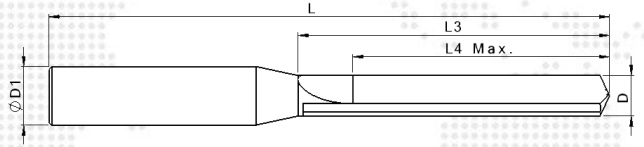
FORNAX
Cutting Tools

703A – External Coolant

704A – Internal Coolant



- Drill for Non-Ferrous and Cast Iron Materials.
- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- Available for 5xD, 8xD, 10xD and 12xD hole depths.
- Cutting diameter tolerance m7
- Additional styles made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD703A07800	Polishing	7,8	29	41	79	36	8
HPD704A07800	Polishing	7,8	29	41	79	36	8
HPD703A07900	Polishing	7,9	29	41	79	36	8
HPD704A07900	Polishing	7,9	29	41	79	36	8
HPD703A08000	Polishing	8	29	41	79	36	8
HPD704A08000	Polishing	8	29	41	79	36	8
HPD703A08100	Polishing	8,1	35	47	89	40	10
HPD704A08100	Polishing	8,1	35	47	89	40	10
HPD703A08200	Polishing	8,2	35	47	89	40	10
HPD704A08200	Polishing	8,2	35	47	89	40	10
HPD703A08300	Polishing	8,3	35	47	89	40	10
HPD704A08300	Polishing	8,3	35	47	89	40	10
HPD703A08400	Polishing	8,4	35	47	89	40	10
HPD704A08400	Polishing	8,4	35	47	89	40	10
HPD703A08500	Polishing	8,5	35	47	89	40	10
HPD704A08500	Polishing	8,5	35	47	89	40	10
HPD703A08600	Polishing	8,6	35	47	89	40	10
HPD704A08600	Polishing	8,6	35	47	89	40	10
HPD703A08700	Polishing	8,7	35	47	89	40	10
HPD704A08700	Polishing	8,7	35	47	89	40	10
HPD703A08800	Polishing	8,8	35	47	89	40	10
HPD704A08800	Polishing	8,8	35	47	89	40	10
HPD703A08900	Polishing	8,9	35	47	89	40	10
HPD704A08900	Polishing	8,9	35	47	89	40	10
HPD703A09000	Polishing	9	35	47	89	40	10
HPD704A09000	Polishing	9	35	47	89	40	10
HPD703A09100	Polishing	9,1	35	47	89	40	10
HPD704A09100	Polishing	9,1	35	47	89	40	10
HPD703A09200	Polishing	9,2	35	47	89	40	10
HPD704A09200	Polishing	9,2	35	47	89	40	10
HPD703A09300	Polishing	9,3	35	47	89	40	10
HPD704A09300	Polishing	9,3	35	47	89	40	10

Straight Flute Drill - 3xD

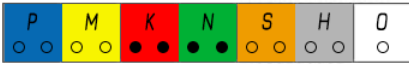
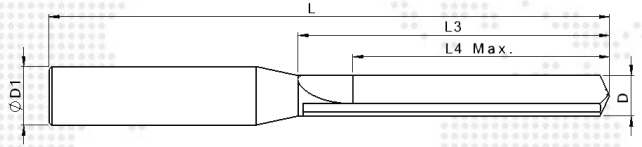
FORNAX
Cutting Tools

703A – External Coolant

704A – Internal Coolant



- Drill for Non-Ferrous and Cast Iron Materials.
- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- Available for 5xD, 8xD, 10xD and 12xD hole depths.
- Cutting diameter tolerance m7
- Additional styles made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD703A09400	Polishing	9,4	35	47	89	40	10
HPD704A09400	Polishing	9,4	35	47	89	40	10
HPD703A09500	Polishing	9,5	35	47	89	40	10
HPD704A09500	Polishing	9,5	35	47	89	40	10
HPD703A09600	Polishing	9,6	35	47	89	40	10
HPD704A09600	Polishing	9,6	35	47	89	40	10
HPD703A09700	Polishing	9,7	35	47	89	40	10
HPD704A09700	Polishing	9,7	35	47	89	40	10
HPD703A09800	Polishing	9,8	35	47	89	40	10
HPD704A09800	Polishing	9,8	35	47	89	40	10
HPD703A09900	Polishing	9,9	35	47	89	40	10
HPD704A09900	Polishing	9,9	35	47	89	40	10
HPD703A10000	Polishing	10	35	47	89	40	10
HPD704A10000	Polishing	10	35	47	89	40	10
HPD703A10100	Polishing	10,1	40	55	102	45	12
HPD704A10100	Polishing	10,1	40	55	102	45	12
HPD703A10200	Polishing	10,2	40	55	102	45	12
HPD704A10200	Polishing	10,2	40	55	102	45	12
HPD703A10300	Polishing	10,3	40	55	102	45	12
HPD704A10300	Polishing	10,3	40	55	102	45	12
HPD703A10400	Polishing	10,4	40	55	102	45	12
HPD704A10400	Polishing	10,4	40	55	102	45	12
HPD703A10500	Polishing	10,5	40	55	102	45	12
HPD704A10500	Polishing	10,5	40	55	102	45	12
HPD703A10600	Polishing	10,6	40	55	102	45	12
HPD704A10600	Polishing	10,6	40	55	102	45	12
HPD703A10700	Polishing	10,7	40	55	102	45	12
HPD704A10700	Polishing	10,7	40	55	102	45	12
HPD703A10800	Polishing	10,8	40	55	102	45	12
HPD704A10800	Polishing	10,8	40	55	102	45	12
HPD703A10900	Polishing	10,9	40	55	102	45	12
HPD704A10900	Polishing	10,9	40	55	102	45	12

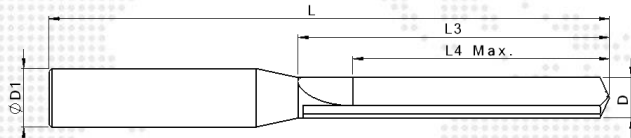
Straight Flute Drill - 3xD



703A – External Coolant
704A – Internal Coolant



- Drill for Non-Ferrous and Cast Iron Materials.
- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- Available for 5xD, 8xD, 10xD and 12xD hole depths.
- Cutting diameter tolerance m7
- Additional styles made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD703A11000	Polishing	11	40	55	102	45	12
HPD704A11000	Polishing	11	40	55	102	45	12
HPD703A11100	Polishing	11,1	40	55	102	45	12
HPD704A11100	Polishing	11,1	40	55	102	45	12
HPD703A11200	Polishing	11,2	40	55	102	45	12
HPD704A11200	Polishing	11,2	40	55	102	45	12
HPD703A11300	Polishing	11,3	40	55	102	45	12
HPD704A11300	Polishing	11,3	40	55	102	45	12
HPD703A11400	Polishing	11,4	40	55	102	45	12
HPD704A11400	Polishing	11,4	40	55	102	45	12
HPD703A11500	Polishing	11,5	40	55	102	45	12
HPD704A11500	Polishing	11,5	40	55	102	45	12
HPD703A11600	Polishing	11,6	40	55	102	45	12
HPD704A11600	Polishing	11,6	40	55	102	45	12
HPD703A11700	Polishing	11,7	40	55	102	45	12
HPD704A11700	Polishing	11,7	40	55	102	45	12
HPD703A11800	Polishing	11,8	40	55	102	45	12
HPD704A11800	Polishing	11,8	40	55	102	45	12
HPD703A11900	Polishing	11,9	40	55	102	45	12
HPD704A11900	Polishing	11,9	40	55	102	45	12
HPD703A12000	Polishing	12	40	55	102	45	12
HPD704A12000	Polishing	12	40	55	102	45	12
HPD703A12100	Polishing	12,1	43	60	107	45	14
HPD704A12100	Polishing	12,1	43	60	107	45	14
HPD703A12200	Polishing	12,2	43	60	107	45	14
HPD704A12200	Polishing	12,2	43	60	107	45	14
HPD703A12300	Polishing	12,3	43	60	107	45	14
HPD704A12300	Polishing	12,3	43	60	107	45	14
HPD703A12400	Polishing	12,4	43	60	107	45	14
HPD704A12400	Polishing	12,4	43	60	107	45	14
HPD703A12500	Polishing	12,5	43	60	107	45	14
HPD704A12500	Polishing	12,5	43	60	107	45	14

Straight Flute Drill - 3xD

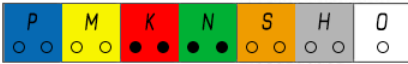
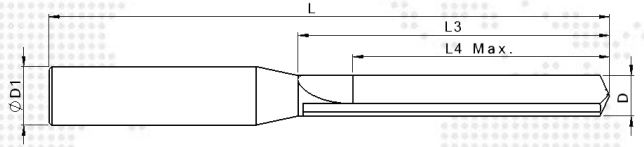
FORNAX
Cutting Tools

703A – External Coolant

704A – Internal Coolant



- Drill for Non-Ferrous and Cast Iron Materials.
- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- Available for 5xD, 8xD, 10xD and 12xD hole depths.
- Cutting diameter tolerance m7
- Additional styles made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD703A12600	Polishing	12,6	43	60	107	45	14
HPD704A12600	Polishing	12,6	43	60	107	45	14
HPD703A12700	Polishing	12,7	43	60	107	45	14
HPD704A12700	Polishing	12,7	43	60	107	45	14
HPD703A12800	Polishing	12,8	43	60	107	45	14
HPD704A12800	Polishing	12,8	43	60	107	45	14
HPD703A12900	Polishing	12,9	43	60	107	45	14
HPD704A12900	Polishing	12,9	43	60	107	45	14
HPD703A13000	Polishing	13	43	60	107	45	14
HPD704A13000	Polishing	13	43	60	107	45	14
HPD703A13100	Polishing	13,1	43	60	107	45	14
HPD704A13100	Polishing	13,1	43	60	107	45	14
HPD703A13200	Polishing	13,2	43	60	107	45	14
HPD704A13200	Polishing	13,2	43	60	107	45	14
HPD703A13300	Polishing	13,3	43	60	107	45	14
HPD704A13300	Polishing	13,3	43	60	107	45	14
HPD703A13400	Polishing	13,4	43	60	107	45	14
HPD704A13400	Polishing	13,4	43	60	107	45	14
HPD703A13500	Polishing	13,5	43	60	107	45	14
HPD704A13500	Polishing	13,5	43	60	107	45	14
HPD703A13600	Polishing	13,6	43	60	107	45	14
HPD704A13600	Polishing	13,6	43	60	107	45	14
HPD703A13700	Polishing	13,7	43	60	107	45	14
HPD704A13700	Polishing	13,7	43	60	107	45	14
HPD703A13800	Polishing	13,8	43	60	107	45	14
HPD704A13800	Polishing	13,8	43	60	107	45	14
HPD703A13900	Polishing	13,9	43	60	107	45	14
HPD704A13900	Polishing	13,9	43	60	107	45	14
HPD703A14000	Polishing	14	43	60	107	45	14
HPD704A14000	Polishing	14	43	60	107	45	14
HPD703A14100	Polishing	14,1	45	65	115	48	16
HPD704A14100	Polishing	14,1	45	65	115	48	16

Straight Flute Drill - 3xD

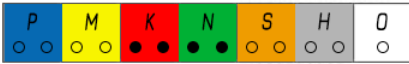
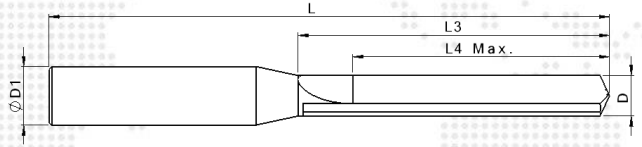
FORNAX
Cutting Tools

703A – External Coolant

704A – Internal Coolant



- Drill for Non-Ferrous and Cast Iron Materials.
- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- Available for 5xD, 8xD, 10xD and 12xD hole depths.
- Cutting diameter tolerance m7
- Additional styles made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD703A14200	Polishing	14,2	45	65	115	48	16
HPD704A14200	Polishing	14,2	45	65	115	48	16
HPD703A14300	Polishing	14,3	45	65	115	48	16
HPD704A14300	Polishing	14,3	45	65	115	48	16
HPD703A14400	Polishing	14,4	45	65	115	48	16
HPD704A14400	Polishing	14,4	45	65	115	48	16
HPD703A14500	Polishing	14,5	45	65	115	48	16
HPD704A14500	Polishing	14,5	45	65	115	48	16
HPD703A14600	Polishing	14,6	45	65	115	48	16
HPD704A14600	Polishing	14,6	45	65	115	48	16
HPD703A14700	Polishing	14,7	45	65	115	48	16
HPD704A14700	Polishing	14,7	45	65	115	48	16
HPD703A14800	Polishing	14,8	45	65	115	48	16
HPD704A14800	Polishing	14,8	45	65	115	48	16
HPD703A14900	Polishing	14,9	45	65	115	48	16
HPD704A14900	Polishing	14,9	45	65	115	48	16
HPD703A15000	Polishing	15	45	65	115	48	16
HPD704A15000	Polishing	15	45	65	115	48	16
HPD703A15100	Polishing	15,1	45	65	115	48	16
HPD704A15100	Polishing	15,1	45	65	115	48	16
HPD703A15200	Polishing	15,2	45	65	115	48	16
HPD704A15200	Polishing	15,2	45	65	115	48	16
HPD703A15300	Polishing	15,3	45	65	115	48	16
HPD704A15300	Polishing	15,3	45	65	115	48	16
HPD703A15400	Polishing	15,4	45	65	115	48	16
HPD704A15400	Polishing	15,4	45	65	115	48	16
HPD703A15500	Polishing	15,5	45	65	115	48	16
HPD704A15500	Polishing	15,5	45	65	115	48	16
HPD703A15600	Polishing	15,6	45	65	115	48	16
HPD704A15600	Polishing	15,6	45	65	115	48	16
HPD703A15700	Polishing	15,7	45	65	115	48	16
HPD704A15700	Polishing	15,7	45	65	115	48	16

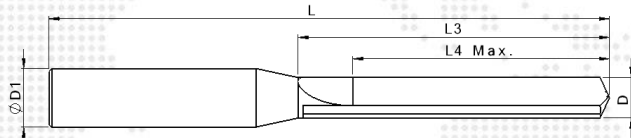
Straight Flute Drill - 3xD

FORNAX
Cutting Tools

703A – External Coolant
704A – Internal Coolant



- Drill for Non-Ferrous and Cast Iron Materials.
- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- Available for 5xD, 8xD, 10xD and 12xD hole depths.
- Cutting diameter tolerance m7
- Additional styles made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD703A15800	Polishing	15,8	45	65	115	48	16
HPD704A15800	Polishing	15,8	45	65	115	48	16
HPD703A15900	Polishing	15,9	45	65	115	48	16
HPD704A15900	Polishing	15,9	45	65	115	48	16
HPD703A16000	Polishing	16	45	65	115	48	16
HPD704A16000	Polishing	16	45	65	115	48	16
HPD703A16100	Polishing	16,1	51	73	123	48	18
HPD704A16100	Polishing	16,1	51	73	123	48	18
HPD703A16200	Polishing	16,2	51	73	123	48	18
HPD704A16200	Polishing	16,2	51	73	123	48	18
HPD703A16300	Polishing	16,3	51	73	123	48	18
HPD704A16300	Polishing	16,3	51	73	123	48	18
HPD703A16400	Polishing	16,4	51	73	123	48	18
HPD704A16400	Polishing	16,4	51	73	123	48	18
HPD703A16500	Polishing	16,5	51	73	123	48	18
HPD704A16500	Polishing	16,5	51	73	123	48	18
HPD703A16600	Polishing	16,6	51	73	123	48	18
HPD704A16600	Polishing	16,6	51	73	123	48	18
HPD703A16700	Polishing	16,7	51	73	123	48	18
HPD704A16700	Polishing	16,7	51	73	123	48	18
HPD703A16800	Polishing	16,8	51	73	123	48	18
HPD704A16800	Polishing	16,8	51	73	123	48	18
HPD703A16900	Polishing	16,9	51	73	123	48	18
HPD704A16900	Polishing	16,9	51	73	123	48	18
HPD703A17000	Polishing	17	51	73	123	48	18
HPD704A17000	Polishing	17	51	73	123	48	18
HPD703A17100	Polishing	17,1	51	73	123	48	18
HPD704A17100	Polishing	17,1	51	73	123	48	18
HPD703A17200	Polishing	17,2	51	73	123	48	18
HPD704A17200	Polishing	17,2	51	73	123	48	18
HPD703A17300	Polishing	17,3	51	73	123	48	18
HPD704A17300	Polishing	17,3	51	73	123	48	18

Straight Flute Drill - 3xD

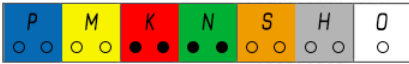
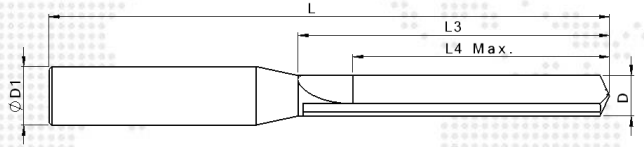
FORNAX
Cutting Tools

703A – External Coolant

704A – Internal Coolant



- Drill for Non-Ferrous and Cast Iron Materials.
- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- Available for 5xD, 8xD, 10xD and 12xD hole depths.
- Cutting diameter tolerance m7
- Additional styles made-to-order.



DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD703A17400	Polishing	17,4	51	73	123	48	18
HPD704A17400	Polishing	17,4	51	73	123	48	18
HPD703A17500	Polishing	17,5	51	73	123	48	18
HPD704A17500	Polishing	17,5	51	73	123	48	18
HPD703A17600	Polishing	17,6	51	73	123	48	18
HPD704A17600	Polishing	17,6	51	73	123	48	18
HPD703A17700	Polishing	17,7	51	73	123	48	18
HPD704A17700	Polishing	17,7	51	73	123	48	18
HPD703A17800	Polishing	17,8	51	73	123	48	18
HPD704A17800	Polishing	17,8	51	73	123	48	18
HPD703A17900	Polishing	17,9	51	73	123	48	18
HPD704A17900	Polishing	17,9	51	73	123	48	18
HPD703A18000	Polishing	18	51	73	123	48	18
HPD704A18000	Polishing	18	51	73	123	48	18
HPD703A18100	Polishing	18,1	55	79	131	50	20
HPD704A18100	Polishing	18,1	55	79	131	50	20
HPD703A18200	Polishing	18,2	55	79	131	50	20
HPD704A18200	Polishing	18,2	55	79	131	50	20
HPD703A18300	Polishing	18,3	55	79	131	50	20
HPD704A18300	Polishing	18,3	55	79	131	50	20
HPD703A18400	Polishing	18,4	55	79	131	50	20
HPD704A18400	Polishing	18,4	55	79	131	50	20
HPD703A18500	Polishing	18,5	55	79	131	50	20
HPD704A18500	Polishing	18,5	55	79	131	50	20
HPD703A18600	Polishing	18,6	55	79	131	50	20
HPD704A18600	Polishing	18,6	55	79	131	50	20
HPD703A18700	Polishing	18,7	55	79	131	50	20
HPD704A18700	Polishing	18,7	55	79	131	50	20
HPD703A18800	Polishing	18,8	55	79	131	50	20
HPD704A18800	Polishing	18,8	55	79	131	50	20
HPD703A18900	Polishing	18,9	55	79	131	50	20
HPD704A18900	Polishing	18,9	55	79	131	50	20

Straight Flute Drill - 3xD

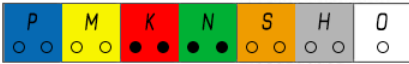
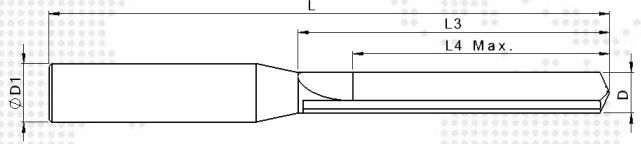


703A – External Coolant

704A – Internal Coolant



- Drill for Non-Ferrous and Cast Iron Materials.
- Two margins for improved guidance even in tough and critical conditions like cross holes and exit on inclined surfaces.
- Available for 5xD, 8xD, 10xD and 12xD hole depths.
- Cutting diameter tolerance m7
- Additional styles made-to-order.

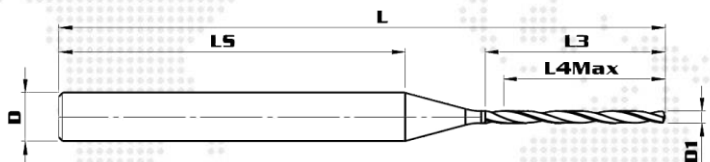


DRILL

Description	Grade	D	L4 Max.	L3	L	LS	D1
HPD703A19000	Polishing	19	55	79	131	50	20
HPD704A19000	Polishing	19	55	79	131	50	20
HPD703A19100	Polishing	19,1	55	79	131	50	20
HPD704A19100	Polishing	19,1	55	79	131	50	20
HPD703A19200	Polishing	19,2	55	79	131	50	20
HPD704A19200	Polishing	19,2	55	79	131	50	20
HPD703A19300	Polishing	19,3	55	79	131	50	20
HPD704A19300	Polishing	19,3	55	79	131	50	20
HPD703A19400	Polishing	19,4	55	79	131	50	20
HPD704A19400	Polishing	19,4	55	79	131	50	20
HPD703A19500	Polishing	19,5	55	79	131	50	20
HPD704A19500	Polishing	19,5	55	79	131	50	20
HPD703A19600	Polishing	19,6	55	79	131	50	20
HPD704A19600	Polishing	19,6	55	79	131	50	20
HPD703A19700	Polishing	19,7	55	79	131	50	20
HPD704A19700	Polishing	19,7	55	79	131	50	20
HPD703A19800	Polishing	19,8	55	79	131	50	20
HPD704A19800	Polishing	19,8	55	79	131	50	20
HPD703A19900	Polishing	19,9	55	79	131	50	20
HPD704A19900	Polishing	19,9	55	79	131	50	20
HPD703A20000	Polishing	20	55	79	131	50	20
HPD704A20000	Polishing	20	55	79	131	50	20



- Drill for micro holes.
- You can choose for spesific materials.
- Cutting diameter tolerance m7
- Additional styles made-to-order.



MICRO DRILL

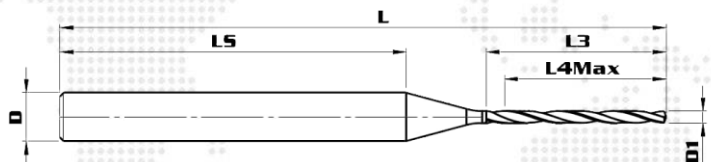
Description	Grade	D1	L4 Max.	L3	L	LS	D
HPD810A00500	FX10PD	0,5	0,5	3	50	35	4
HPD820A00500	FX10PD	0,5	1	3,5	50	35	4
HPD830A00500	FX10PD	0,5	1,5	4	50	35	4
HPD840A00500	FX10PD	0,5	2	4,5	50	35	4
HPD850A00500	FX10PD	0,5	2,5	5	50	35	4
HPD860A00500	FX10PD	0,5	3	5,5	50	35	4
HPD870A00500	FX10PD	0,5	3,5	6	50	35	4
HPD880A00500	FX10PD	0,5	4	6,5	50	35	4
HPD890A00500	FX10PD	0,5	4,5	7	50	35	4
HPD810A00600	FX10PD	0,6	0,6	3,5	50	35	4
HPD820A00600	FX10PD	0,6	1,2	4	50	35	4
HPD830A00600	FX10PD	0,6	1,8	4,5	50	35	4
HPD840A00600	FX10PD	0,6	2,4	5	50	35	4
HPD850A00600	FX10PD	0,6	3	5,5	50	35	4
HPD860A00600	FX10PD	0,6	3,6	6	50	35	4
HPD870A00600	FX10PD	0,6	4,2	6,5	50	35	4
HPD880A00600	FX10PD	0,6	4,8	7	50	35	4
HPD890A00600	FX10PD	0,6	5,2	7,5	50	35	4
HPD810A00700	FX10PD	0,7	0,7	4	50	35	4
HPD820A00700	FX10PD	0,7	1,4	4,5	50	35	4
HPD830A00700	FX10PD	0,7	2,1	5	50	35	4
HPD840A00700	FX10PD	0,7	2,8	5,5	50	35	4
HPD850A00700	FX10PD	0,7	3,5	6	50	35	4
HPD860A00700	FX10PD	0,7	4,2	6,5	50	35	4
HPD870A00700	FX10PD	0,7	4,9	7	50	35	4
HPD880A00700	FX10PD	0,7	5,6	7,5	50	35	4
HPD890A00700	FX10PD	0,7	6,3	8	50	35	4
HPD810A00800	FX10PD	0,8	0,8	4,5	50	35	4
HPD820A00800	FX10PD	0,8	1,6	5	50	35	4
HPD830A00800	FX10PD	0,8	2,4	5,5	50	35	4
HPD840A00800	FX10PD	0,8	3,2	6	50	35	4
HPD850A00800	FX10PD	0,8	4	6,5	50	35	4

Micro Drill



8XXA – External Coolant

- Drill for micro holes.
- You can choose for spesific materials.
- Cutting diameter tolerance m7
- Additional styles made-to-order.



MICRO DRILL

Description	Grade	D1	L4 Max.	L3	L	LS	D
HPD860A00800	FX10PD	0,8	4,8	7	50	35	4
HPD870A00800	FX10PD	0,8	5,6	7,5	50	35	4
HPD880A00800	FX10PD	0,8	6,4	8	50	35	4
HPD890A00800	FX10PD	0,8	7,2	8,5	50	35	4
HPD810A00900	FX10PD	0,9	0,9	3,9	50	35	4
HPD820A00900	FX10PD	0,9	1,8	4,8	50	35	4
HPD830A00900	FX10PD	0,9	2,7	5,7	50	35	4
HPD840A00900	FX10PD	0,9	3,6	6,6	50	35	4
HPD850A00900	FX10PD	0,9	4,5	7,5	50	35	4
HPD860A00900	FX10PD	0,9	5,4	8,4	50	35	4
HPD870A00900	FX10PD	0,9	6,3	9,3	50	35	4
HPD880A00900	FX10PD	0,9	7,2	10,2	50	35	4
HPD890A00900	FX10PD	0,9	8,1	11,1	50	35	4
HPD810A01000	FX10PD	1	1	4	50	35	4
HPD820A01000	FX10PD	1	2	5	50	35	4
HPD830A01000	FX10PD	1	3	6	50	35	4
HPD840A01000	FX10PD	1	4	7	50	35	4
HPD850A01000	FX10PD	1	5	8	50	35	4
HPD860A01000	FX10PD	1	6	9	50	35	4
HPD870A01000	FX10PD	1	7	10	50	35	4
HPD880A01000	FX10PD	1	8	11	50	35	4
HPD890A01000	FX10PD	1	9	12	50	35	4
HPD810A01100	FX10PD	1,1	1,1	4,1	50	35	4
HPD820A01100	FX10PD	1,1	2,2	5,2	50	35	4
HPD830A01100	FX10PD	1,1	3,3	6,3	50	35	4
HPD840A01100	FX10PD	1,1	4,4	7,4	50	35	4
HPD850A01100	FX10PD	1,1	5,5	8,5	50	35	4
HPD860A01100	FX10PD	1,1	6,6	9,6	50	35	4
HPD870A01100	FX10PD	1,1	7,7	10,7	50	35	4
HPD880A01100	FX10PD	1,1	8,8	11,8	55	35	4
HPD890A01100	FX10PD	1,1	9,9	12,9	55	35	4
HPD810A01200	FX10PD	1,2	1,2	4,2	50	35	4

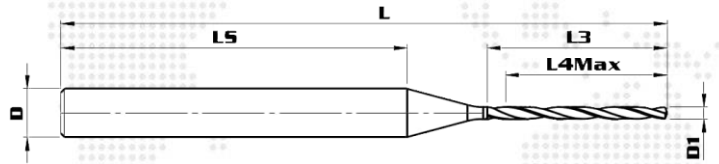
Micro Drill



8XXA – External Coolant



- Drill for micro holes.
- You can choose for spesific materials.
- Cutting diameter tolerance m7
- Additional styles made-to-order.



MICRO DRILL

Description	Grade	D1	L4 Max.	L3	L	LS	D
HPD820A01200	FX10PD	1,2	2,4	5,4	50	35	4
HPD830A01200	FX10PD	1,2	3,6	6,6	50	35	4
HPD840A01200	FX10PD	1,2	4,8	7,8	50	35	4
HPD850A01200	FX10PD	1,2	6	9	50	35	4
HPD860A01200	FX10PD	1,2	7,2	10,2	50	35	4
HPD870A01200	FX10PD	1,2	8,4	11,4	55	35	4
HPD880A01200	FX10PD	1,2	9,6	12,6	55	35	4
HPD890A01200	FX10PD	1,2	10,8	13,8	55	35	4
HPD810A01300	FX10PD	1,3	1,3	4,3	50	35	4
HPD820A01300	FX10PD	1,3	2,6	5,6	50	35	4
HPD830A01300	FX10PD	1,3	3,9	6,9	50	35	4
HPD840A01300	FX10PD	1,3	5,2	8,2	50	35	4
HPD850A01300	FX10PD	1,3	6,5	9,5	50	35	4
HPD860A01300	FX10PD	1,3	7,8	10,8	50	35	4
HPD870A01300	FX10PD	1,3	9,1	12,1	55	35	4
HPD880A01300	FX10PD	1,3	10,4	13,4	55	35	4
HPD890A01300	FX10PD	1,3	11,7	14,7	55	35	4
HPD810A01400	FX10PD	1,4	1,4	4,4	50	35	4
HPD820A01400	FX10PD	1,4	2,8	5,8	50	35	4
HPD830A01400	FX10PD	1,4	4,2	7,2	50	35	4
HPD840A01400	FX10PD	1,4	5,6	8,6	50	35	4
HPD850A01400	FX10PD	1,4	7	10	50	35	4
HPD860A01400	FX10PD	1,4	8,4	11,4	50	35	4
HPD870A01400	FX10PD	1,4	9,8	12,8	55	35	4
HPD880A01400	FX10PD	1,4	11,2	14,2	55	35	4
HPD890A01400	FX10PD	1,4	12,6	15,6	55	35	4
HPD810A01500	FX10PD	1,5	1,5	4,5	50	35	4
HPD820A01500	FX10PD	1,5	3	6	50	35	4
HPD830A01500	FX10PD	1,5	4,5	7,5	50	35	4
HPD840A01500	FX10PD	1,5	6	9	50	35	4
HPD850A01500	FX10PD	1,5	7,5	10,5	50	35	4
HPD860A01500	FX10PD	1,5	9	12	55	35	4

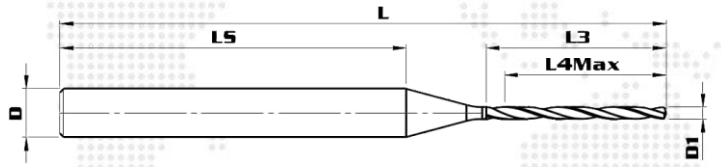
Micro Drill



8XXA – External Coolant



- Drill for micro holes.
- You can choose for spesific materials.
- Cutting diameter tolerance m7
- Additional styles made-to-order.



MICRO DRILL

Description	Grade	D1	L4 Max.	L3	L	LS	D
HPD870A01500	FX10PD	1,5	10,5	13,5	55	35	4
HPD880A01500	FX10PD	1,5	12	15	55	35	4
HPD890A01500	FX10PD	1,5	13,5	16,5	55	35	4
HPD810A01600	FX10PD	1,6	1,6	4,6	50	35	4
HPD820A01600	FX10PD	1,6	3,2	6,2	50	35	4
HPD830A01600	FX10PD	1,6	4,8	7,8	50	35	4
HPD840A01600	FX10PD	1,6	6,4	9,4	50	35	4
HPD850A01600	FX10PD	1,6	8	11	55	35	4
HPD860A01600	FX10PD	1,6	9,6	12,6	55	35	4
HPD870A01600	FX10PD	1,6	11,2	14,2	55	35	4
HPD880A01600	FX10PD	1,6	12,8	15,8	55	35	4
HPD890A01600	FX10PD	1,6	14,4	17,4	55	35	4
HPD810A01700	FX10PD	1,7	1,7	4,7	50	35	4
HPD820A01700	FX10PD	1,7	3,4	6,4	50	35	4
HPD830A01700	FX10PD	1,7	5,1	8,1	50	35	4
HPD840A01700	FX10PD	1,7	6,8	9,8	50	35	4
HPD850A01700	FX10PD	1,7	8,5	11,5	55	35	4
HPD860A01700	FX10PD	1,7	10,2	13,2	55	35	4
HPD870A01700	FX10PD	1,7	11,9	14,9	55	35	4
HPD880A01700	FX10PD	1,7	13,6	16,6	55	35	4
HPD890A01700	FX10PD	1,7	15,3	18,3	55	35	4
HPD810A01800	FX10PD	1,8	1,8	4,8	50	35	4
HPD820A01800	FX10PD	1,8	3,6	6,6	50	35	4
HPD830A01800	FX10PD	1,8	5,4	8,4	50	35	4
HPD840A01800	FX10PD	1,8	7,2	10,2	50	35	4
HPD850A01800	FX10PD	1,8	9	12	55	35	4
HPD860A01800	FX10PD	1,8	10,8	13,8	55	35	4
HPD870A01800	FX10PD	1,8	12,6	15,6	55	35	4
HPD880A01800	FX10PD	1,8	14,4	17,4	55	35	4
HPD890A01800	FX10PD	1,8	16,2	19,2	55	35	4
HPD810A01900	FX10PD	1,9	1,9	4,9	50	35	4
HPD820A01900	FX10PD	1,9	3,8	6,8	50	35	4

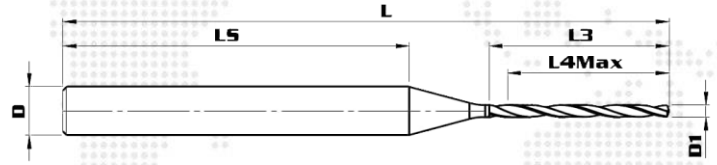
Micro Drill



8XXA – External Coolant



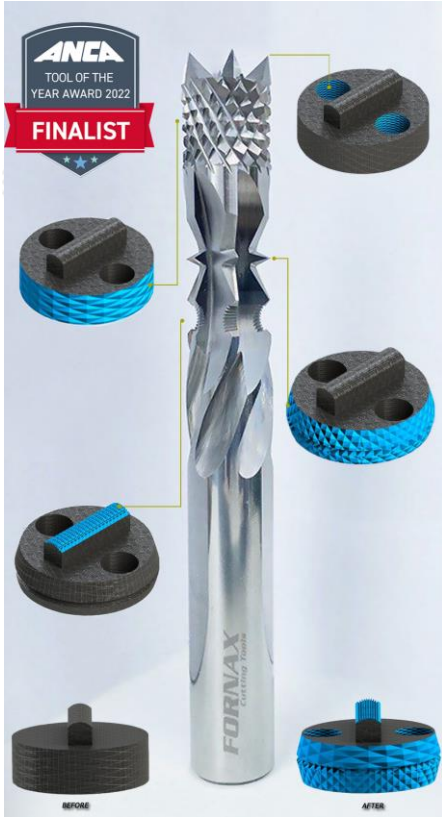
- Drill for micro holes.
- You can choose for spesific materials.
- Cutting diameter tolerance m7
- Additional styles made-to-order.



MICRO DRILL

Description	Grade	D1	L4 Max.	L3	L	LS	D
HPD830A01900	FX10PD	1,9	5,7	8,7	50	35	4
HPD840A01900	FX10PD	1,9	7,6	10,6	50	35	4
HPD850A01900	FX10PD	1,9	9,5	12,5	55	35	4
HPD860A01900	FX10PD	1,9	11,4	14,4	55	35	4
HPD870A01900	FX10PD	1,9	13,3	16,3	55	35	4
HPD880A01900	FX10PD	1,9	15,2	18,2	60	35	4
HPD890A01900	FX10PD	1,9	17,1	20,1	60	35	4
HPD810A02000	FX10PD	2	2	5	50	35	4
HPD820A02000	FX10PD	2	4	7	50	35	4
HPD830A02000	FX10PD	2	6	9	50	35	4
HPD840A02000	FX10PD	2	8	11	55	35	4
HPD850A02000	FX10PD	2	10	13	55	35	4
HPD860A02000	FX10PD	2	12	15	55	35	4
HPD870A02000	FX10PD	2	14	17	60	35	4
HPD880A02000	FX10PD	2	16	19	60	35	4
HPD890A02000	FX10PD	2	18	21	60	35	4

Crown of The King



FORNAX Cutting Tools is the 2022 finalist of the ANCA Tool of the Year. Our team designed and created custom tool to show our capabilities. This tool is a multifunctional tool designed to take the place of four separate cutting tools.

- 1) "Crown of the king" is work like a punch tool.
- 2) High performance finish tool for composite material.
- 3) "Sharp form" on rear side of the parts that tool work on.
- 4) Half circle thread tool with perfect precision.

All the time we designed for customer's increased profitability by reducing tool changes. Also enhanced geometries in a combined process for better performance and tool life. We are constantly pushing the boundaries of what is possible.

Think local, design global...



Producing the special tools that our customers need to do their unique work is just the easiest step of the FORNAX abilities.



Our engineers help identify your opportunities to increase value, cost reduction, improve quality and performance, and enhance manufacturing operations.



Composites Endmill

- Suited for Carbon, Glass Fiber and other composites.
- Right and Left helix is possible.
- Coating increase good tool life.
- Additional styles made-to-order.



Barrel

- Lens Form, Oval Form, Taper Form and Barrel form is possible.
- Choosable for materials.
- Suitable for side profile milling.
- Additional styles made-to-order.



Two Helix Endmill

- CFRP/GFRP rough milling.
- Right and Left helix in same tool.
- Coating increase good tool life.
- Additional styles made-to-order.



Concave Radius Endmill

- CFRP/GFRP rough milling.
- Right and Left helix is possible.
- Coating increase good tool life.
- Additional styles made-to-order.



Outer Radius Endmill

- CFRP/GFRP rough milling.
- Right and Left helix is possible.
- Coating increase good tool life.
- Additional styles made-to-order.



Inner Radius Endmill

- Flares are tangent to Radius.
- Unflared shoulder and pilot for full Radius form is possible.
- Additional styles made-to-order.



Dovetail Endmill

- Optimum neck for long machining.
- Include corner radius for strength.
- Additional styles made-to-order.



Conical Endmill

- CFRP/GFRP rough milling.
- Right and Left helix is possible.
- Coating increase good tool life.
- Additional styles made-to-order.



Hand Reamer

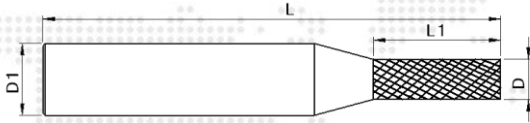
- CFRP/GFRP rough milling.
- Right and Left helix is possible.
- Coating increase good tool life.
- Additional styles made-to-order.

Check Out for more custom tools..



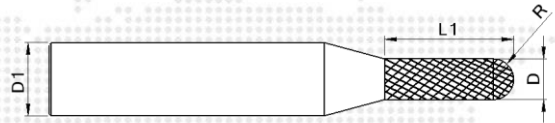
Deburring Endmill

Square



- D: Cutter Diameter
- L1: Length of cut
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flutes
- Workpiece Materials.

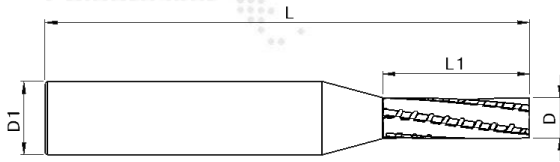
Radius and Ball Nose



- D: Cutter Diameter
- R: Radius
- L1: Length of cut
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flutes
- Workpiece Materials.

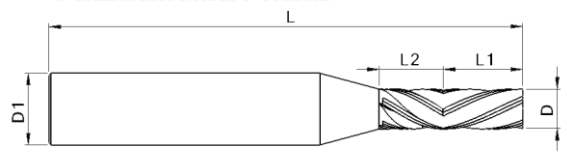
Composite Endmill

Chipbreaker



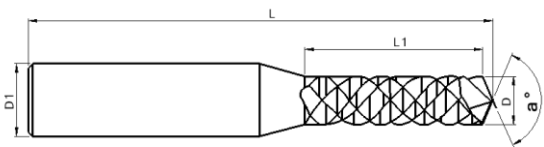
- D: Cutter Diameter
- L1: Length of cut
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flutes
- Workpiece Materials.

Compression Cutter



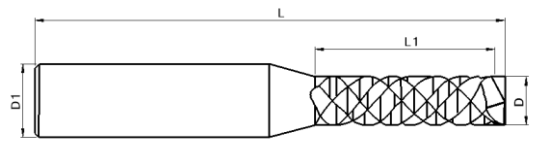
- D: Cutter Diameter
- L1: Length of cut
- L2: Overlap Length
- L: Overall Length
- D1: Shank Diameter
- Cut Direction (1. and 2. step)
- Flutes
- Workpiece Materials.

Drill Style



- D: Cutter Diameter
- L1: Length of cut
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Point Angle.
- Workpiece Materials.

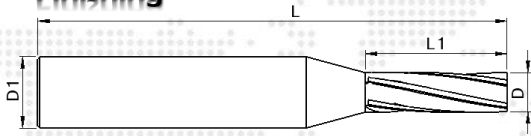
Endmill Style



- D: Cutter Diameter
- L1: Length of cut
- L2: Overlap Length
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Workpiece Materials.

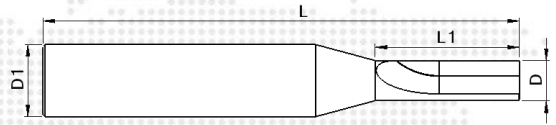
Composite Endmill (Continue)

Finishing



- D: Cutter Diameter
- L1: Length of cut
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flutes
- Workpiece Materials.

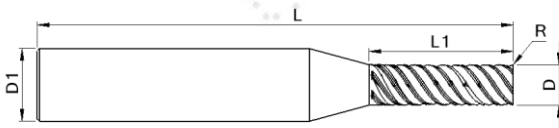
Straight Flute



- D: Cutter Diameter
- L1: Length of cut
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Workpiece Materials.

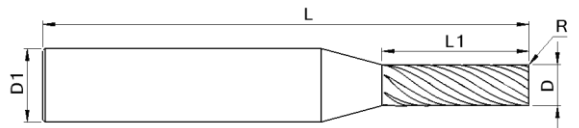
Hard Milling Endmill

Hard Milling 5-6 Flute



- D: Cutter Diameter
- L1: Length of cut
- L: Overall Length
- D1: Shank Diameter
- Radius or Chamfer (Optional)
- Flutes
- Workpiece Materials.

Hard Milling 7 Flute

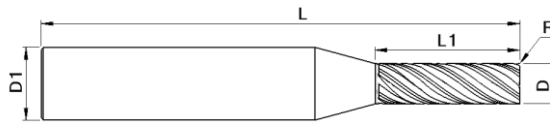


- D: Cutter Diameter
- L1: Length of cut
- L: Overall Length
- D1: Shank Diameter
- Radius or Chamfer (Optional)
- Workpiece Materials.

MAKE YOUR TOOL

Specialized for Materials Endmill

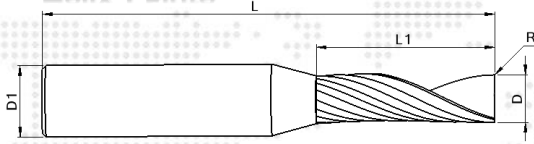
Square- Chamfer- Radius and Ball Nose



- D: Cutter Diameter
- L1: Length of cut
- L: Overall Length
- D1: Shank Diameter
- Radius or Chamfer or Ball Nose
- Flutes
- Workpiece Materials.

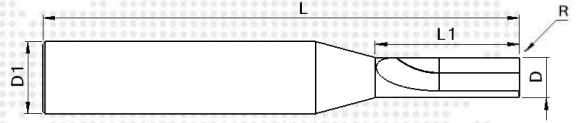
Endmill For Plastics

Helix 1 Flute



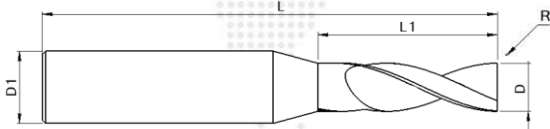
- D: Cutter Diameter
- L1: Length of cut
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Radius or Chamfer or Ball Nose
- Workpiece Materials.

Straight 2 Flutes



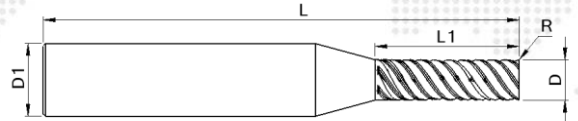
- D: Cutter Diameter
- L1: Length of cut
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Radius or Chamfer or Ballnose
- Workpiece Materials.

Helix 2 Flute



- D: Cutter Diameter
- L1: Length of cut
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Radius or Chamfer or Ball Nose
- Workpiece Materials.

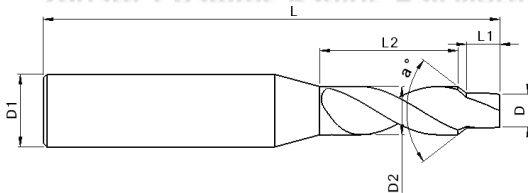
Finishing



- D: Cutter Diameter
- L1: Length of cut
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Radius or Chamfer or Ball Nose
- Workpiece Materials.

Stepped Endmill

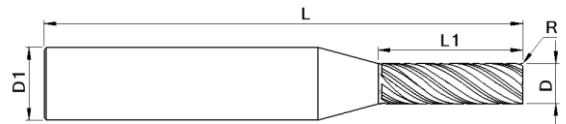
Square- Chamfer- Radius- Ball Nose



- D: Minor Diameter
- L1: Length of Minor Cut
- a°: Included Angle
- D2: Major Diameter
- L2: Length of Major Cut
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Helix Angle
- Radius or Chamfer or Ball Nose
- Workpiece Materials.

Variable Helix Endmill

Square- Chamfer- Radius- Ball Nose

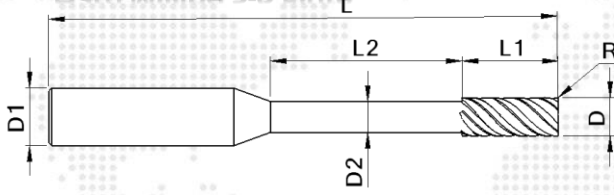


- D: Cutter Diameter
- L1: Length of cut
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Helix Angle – 1
- Helix Angle – 2
- Radius or Chamfer or Ball Nose
- Workpiece Materials.

MAKE YOUR TOOL

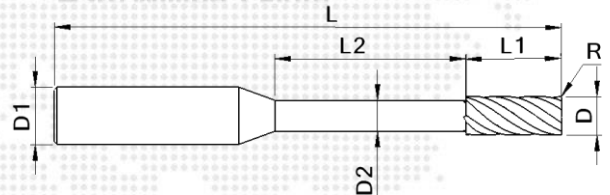
Long Reach Endmill

Hard Milling 5-6 Flute



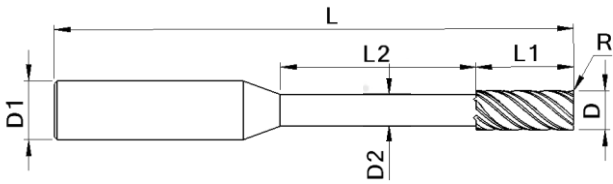
- D: Cutter Diameter
- L1: Length of cut
- L2: Length of Neck
- D2: Neck Diameter
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Radius or Chamfer or Ball Nose
- Flute
- Workpiece Materials.

Hard Milling 7 Flute



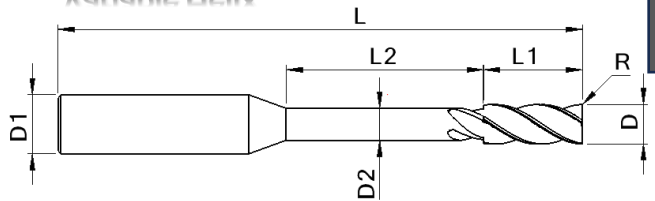
- D: Cutter Diameter
- L1: Length of cut
- L2: Length of Neck
- D2: Neck Diameter
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Radius or Chamfer or Ball Nose
- Flute
- Workpiece Materials.

Specialized Materials



- D: Cutter Diameter
- L1: Length of cut
- L2: Length of Neck
- D2: Neck Diameter
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Radius or Chamfer or Ball Nose
- Flute
- Workpiece Materials.

Variable Helix

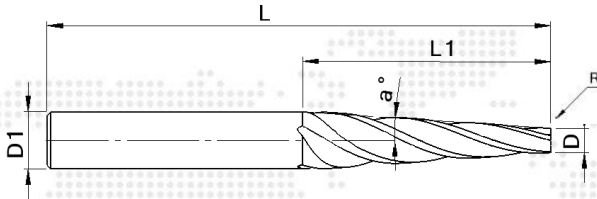


- D: Cutter Diameter
- L1: Length of cut
- L2: Length of Neck
- D2: Neck Diameter
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Helix Angle – 1
- Helix Angle - 2
- Radius or Chamfer or Ball Nose
- Flute
- Workpiece Materials.

MAKE YOUR TOOL

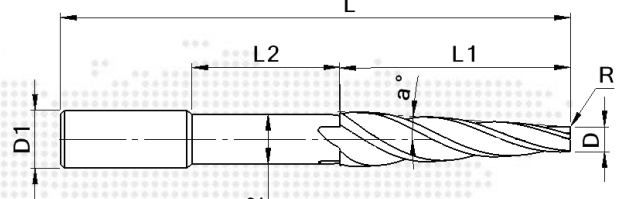
Tapered Endmill

Square-Chamfer-Radius-Ball Nose



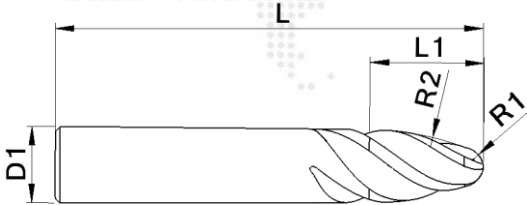
- D: Cutter Diameter
- L1: Length of cut
- a° : Included Angle
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Radius or Chamfer or Ball Nose
- Flute
- Workpiece Materials.

Long Reach Tapered Endmill



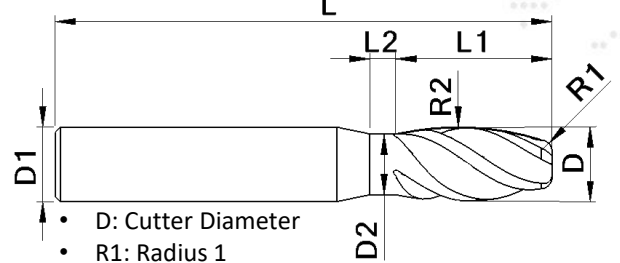
- D: Cutter Diameter
- L1: Length of cut
- L2: Length of Neck
- D2: Neck Diameter
- a° : Included Angle
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Radius or Chamfer or Ball Nose
- Flute
- Workpiece Materials.

Barrel – Oval Form



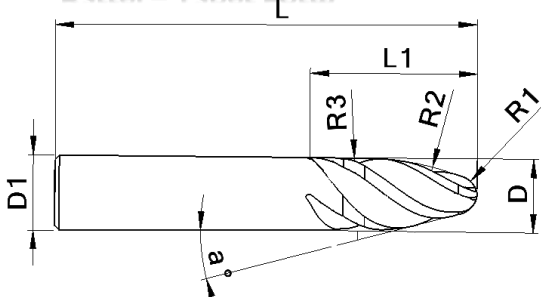
- D: Cutter Diameter
- R1: Radius 1
- R2: Radius 2
- L1: Length of cut
- L: Overall Length
- D1: Shank Diameter
- Flute
- Workpiece Materials.

Barrel – Barrel Form



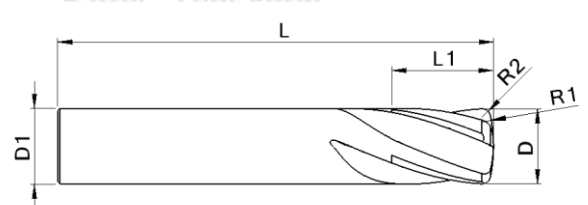
- D: Cutter Diameter
- R1: Radius 1
- R2: Radius 2
- L1: Length of cut
- L2: Length of Neck
- D2: Neck Diameter
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flute
- Workpiece Materials.

Barrel – Taper Form



- D: Cutter Diameter
- R1: Radius 1
- R2: Radius 2
- R3: Radius 3
- a° : Included Angle
- L1: Length of cut
- L: Overall Length
- D1: Shank Diameter
- Flute
- Workpiece Materials.

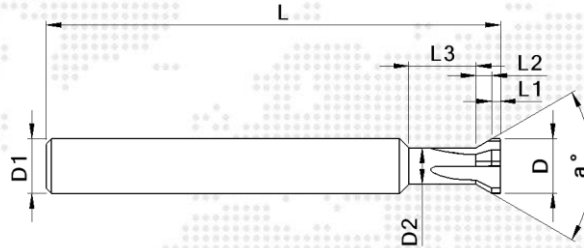
Barrel – Lens Form



- D: Cutter Diameter
- R1: Radius 1
- R2: Radius 2
- L1: Length of cut
- L: Overall Length
- D1: Shank Diameter
- Flute
- Workpiece Materials.

Back Deburring Mill

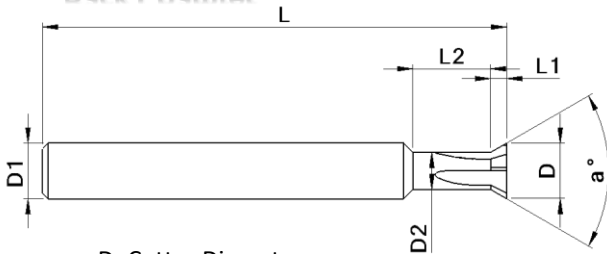
Double Cutter



- D: Cutter Diameter
- L1: Length of cut 1
- L2: Length of cut 2
- L3: Length of Neck
- D2: Neck Diameter
- a°: Cutter Inner Angle
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Workpiece Materials.

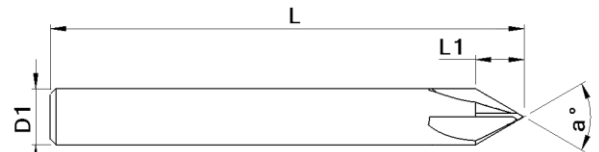
Chamfer Mill

Back Chamfer



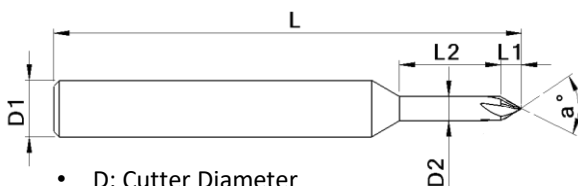
- D: Cutter Diameter
- L1: Length of cut
- L2: Length of Neck
- D2: Neck Diameter
- a°: Cutter Inner Angle
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Workpiece Materials.

Straight Flute



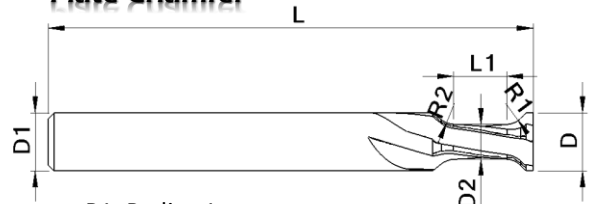
- D: Cutter Diameter
- L1: Length of cut
- a°: Cutter Angle
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Workpiece Materials.

Long Reach Chamfer



- D: Cutter Diameter
- L1: Length of cut
- L2: Length of Neck
- D2: Neck Diameter
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Workpiece Materials.

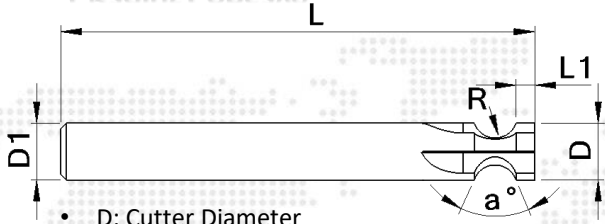
Plate Chamfer



- R1: Radius 1
- D2: Minor Diameter
- R2: Radius 2
- L1: Length of Minor Cutter
- D1: Shank Diameter
- Cut Direction
- Workpiece Materials.

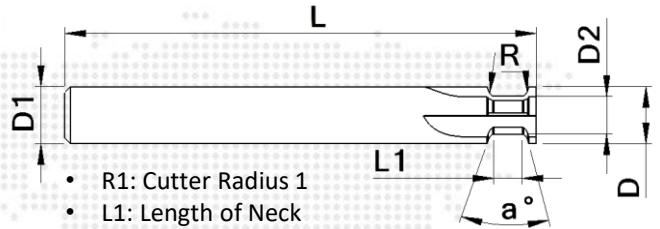
Concave Radius Endmill

1 Radius Concave



- D: Cutter Diameter
- L1: Width
- R: Radius
- a°: Included Angle
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flute
- Workpiece Materials.

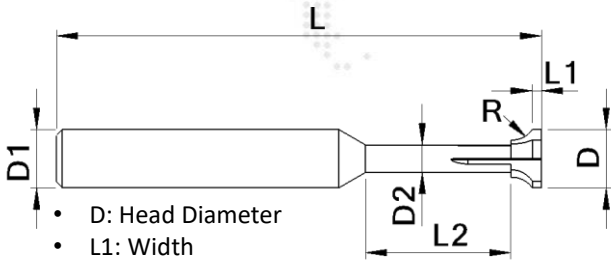
2 Radius Concave



- R1: Cutter Radius 1
- L1: Length of Neck
- R2: Cutter Radius
- a°: Included Angle
- D2: Neck Diameter
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flute
- Workpiece Materials.

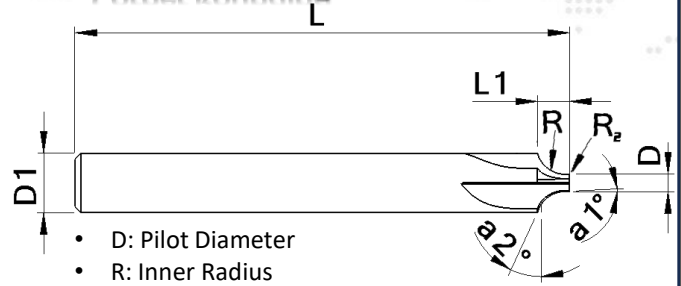
Corner Rounding Endmill

Back Corner



- D: Head Diameter
- L1: Width
- R: Radius
- D2: Neck Diameter
- L2: Length of Neck
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flute
- Workpiece Materials.
- You can add angle head and end of Radius.

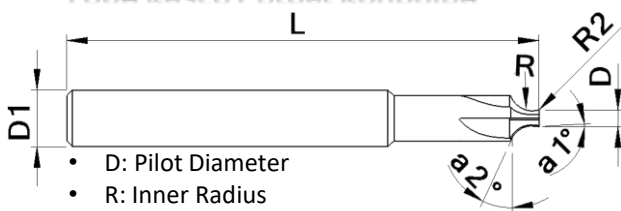
Corner Rounding



- D: Pilot Diameter
- R: Inner Radius
- R2: Square or Chamfer or Radius or Ballnose
- a1°: Pilot Flare
- a2°: Shoulder Flare
- L1: Length of Cut
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flute
- Workpiece Materials.

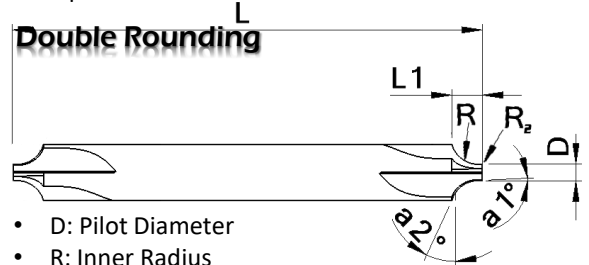
MAKE YOUR TOOL

Long Reach Corner Rounding



- D: Pilot Diameter
- R: Inner Radius
- R2: Square or Chamfer or Radius or Ballnose
- a1°: Pilot Flare
- a2°: Shoulder Flare
- L1: Length of Cut
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flute
- Workpiece Materials.

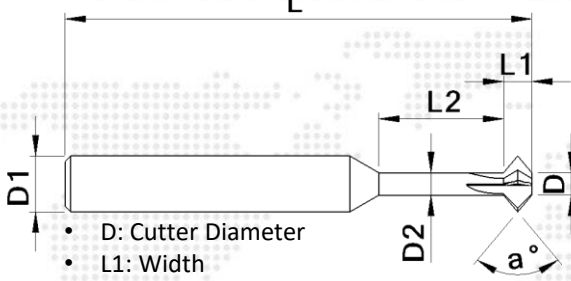
Double Rounding



- D: Pilot Diameter
- R: Inner Radius
- R2: Square or Chamfer or Radius or Ballnose
- a1°: Pilot Flare
- a2°: Shoulder Flare
- L1: Length of Cut
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flute
- Workpiece Materials.

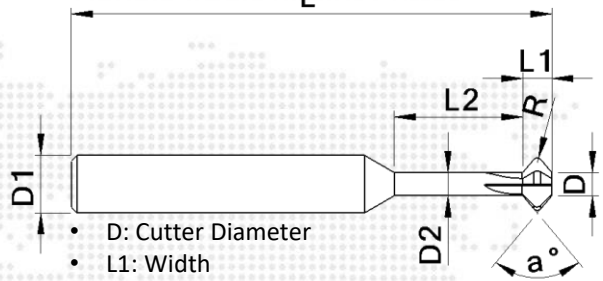
Double Angle Shank Cutter

Double Angle Standard Shank Cutter



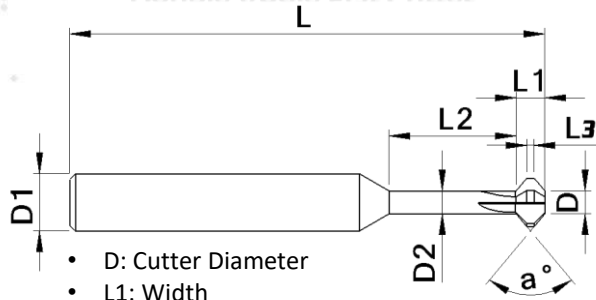
- D: Cutter Diameter
- L1: Width
- a° : Included Angle
- L2: Length of Neck
- D2: Neck Diameter
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flute
- Workpiece Materials.

Double Angle Radius Cutter



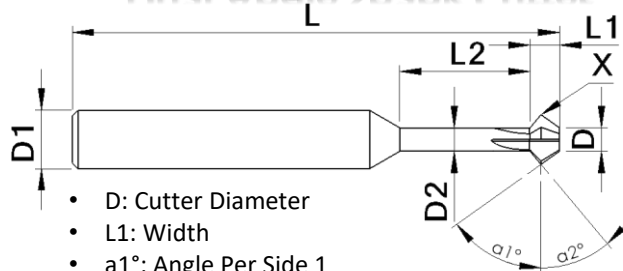
- D: Cutter Diameter
- L1: Width
- a° : Included Angle
- R: Radius
- L2: Length of Neck
- D2: Neck Diameter
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flute
- Workpiece Materials.

Double Angle Flat Cutter



- D: Cutter Diameter
- L1: Width
- a° : Included Angle
- L3: Length of Flat
- L2: Length of Neck
- D2: Neck Diameter
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flute
- Workpiece Materials.

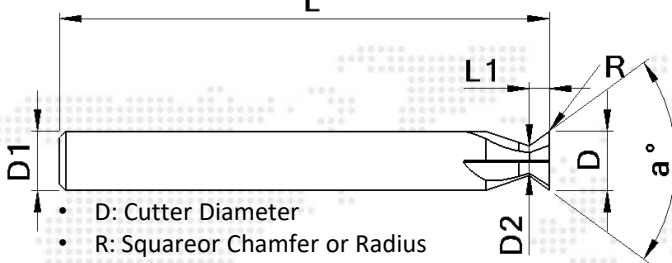
Dual Angle Shank Cutter



- D: Cutter Diameter
- L1: Width
- $a1^\circ$: Angle Per Side 1
- $a2^\circ$: Angle Per Side 2
- L2: Length of Neck
- D2: Neck Diameter
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flute
- Workpiece Materials.
- X: Standart, Radius or Flat
- (If selected Flat style, please give Length of Flat)

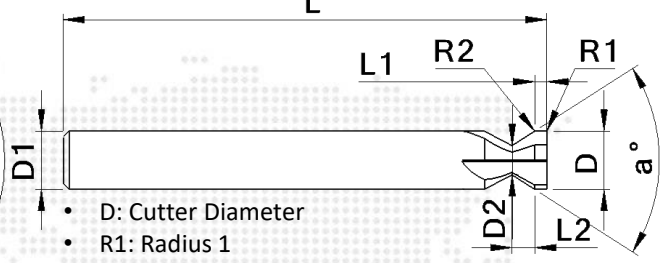
Dovetail Cutters

Standard Dovetail



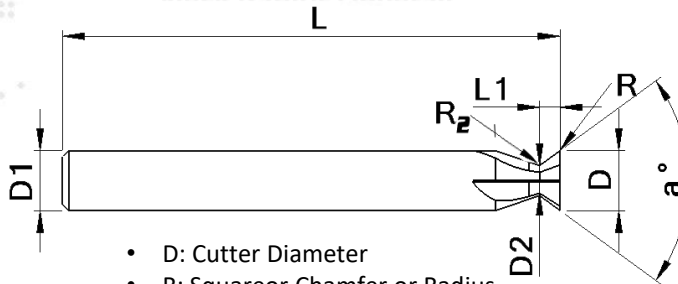
- D: Cutter Diameter
- R: Square or Chamfer or Radius
- a°: Included Angle
- L1: Length of Cut
- D2: Neck Diameter
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flute
- Workpiece Materials.

Corner Flat Dovetail



- D: Cutter Diameter
- R1: Radius 1
- R2: Radius 2
- a°: Included Angle
- L1: Tip Flat
- L2: Length of Cut
- D2: Neck Diameter
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flute
- Workpiece Materials.

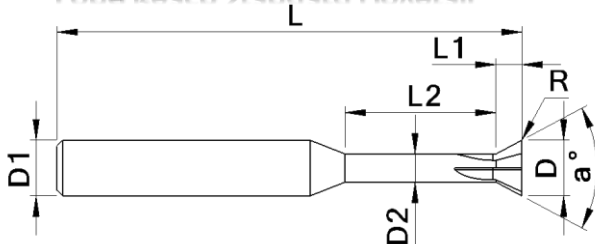
Neck Radius Dovetail



- D: Cutter Diameter
- R: Square or Chamfer or Radius
- a°: Included Angle
- L1: Length of Cut
- R2: Neck Radius
- D2: Neck Diameter
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flute
- Workpiece Materials.

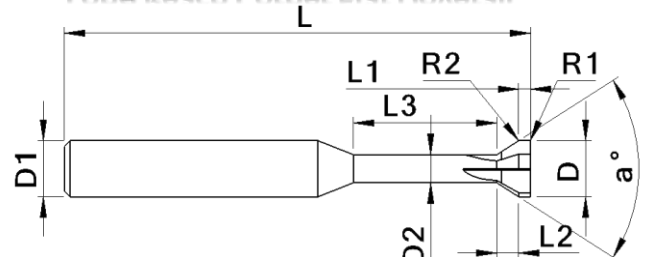
Long Reach Dovetail Cutters

Long Reach Standard Dovetail



- D: Cutter Diameter
- R: Radius
- a°: Included Angle
- L1: Length of Cut
- L2: Length of Neck
- D2: Neck Diameter
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flute
- Workpiece Materials.

Long Reach Corner Flat Dovetail

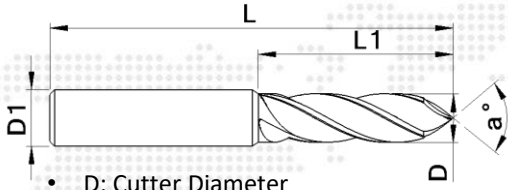


- D: Cutter Diameter
- R1: Radius 1
- R2: Radius 2
- a°: Included Angle
- L1: Tip Flat
- L2: Length of Cut
- D2: Neck Diameter
- L3: Length of Neck
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flute
- Workpiece Materials.

MAKE YOUR TOOL

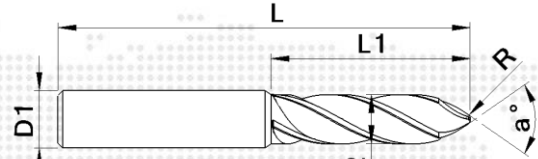
Drill Mill

Pointed Drill Mill



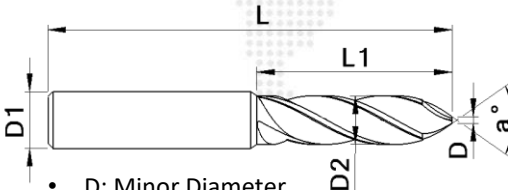
- D: Cutter Diameter
- a°: Included Angle
- L1: Length of Cut
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flute
- Workpiece Materials.

Radius Drill Mill



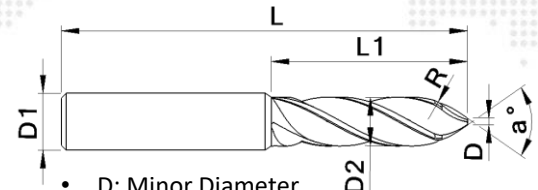
- D: Cutter Diameter
- R: Radius
- a°: Included Angle
- L1: Length of Cut
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flute
- Workpiece Materials.

Tip Flat Drill Mill



- D: Minor Diameter
- a°: Included Angle
- D2: Cutter Diameter
- L1: Length of Cut
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flute
- Workpiece Materials.

Tip Radius Drill Mill

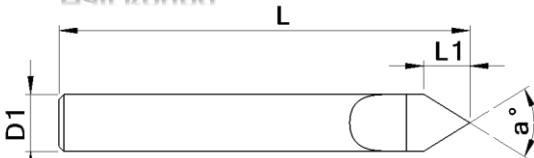


- D: Minor Diameter
- R: Radius
- a°: Included Angle
- D2: Cutter Diameter
- L1: Length of Cut
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flute
- Workpiece Materials.

MAKE YOUR TOOL

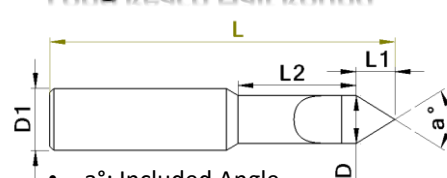
Engraving Cutters

Half Round



- a°: Included Angle
- L1: Length of Cut
- L: Overall Length
- D1: Shank Diameter
- Workpiece Materials.

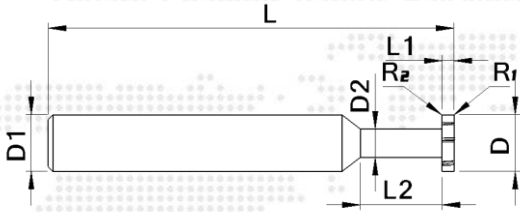
Long Reach Half Round



- a°: Included Angle
- L1: Length of Cut
- L2: Length of Neck
- L: Overall Length
- D1: Shank Diameter
- Workpiece Materials.

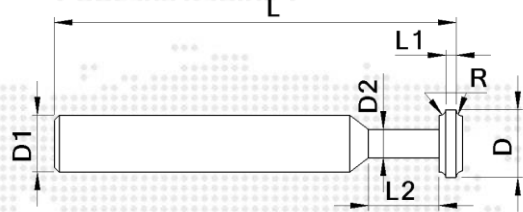
Keyseat Cutters

Square-Chamfer-Radius-Ball Nose



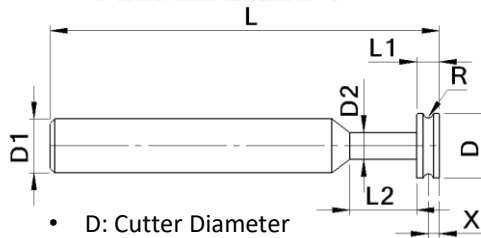
- D: Cutter Diameter
- L1: Width of cut
- R1: Radius 1/ Chamfer 1
- R2: Radius 2/ Chamfer 2
- D2: Neck Diameter
- L2: Length of Neck
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Straight or Helix
- Flute
- Workpiece Materials.

Concave Radius 1



- D: Cutter Diameter
- L1: Width of cut
- R: Radius
- D2: Neck Diameter
- L2: Length of Neck
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flute
- Workpiece Materials.

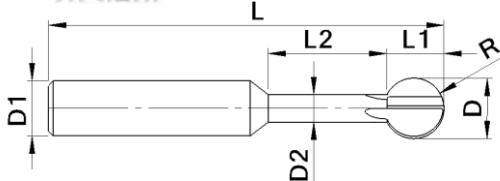
Concave Radius 2



- D: Cutter Diameter
- L1: Width of cut
- R: Radius
- D2: Neck Diameter
- L2: Length of Neck
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flute
- Workpiece Materials.

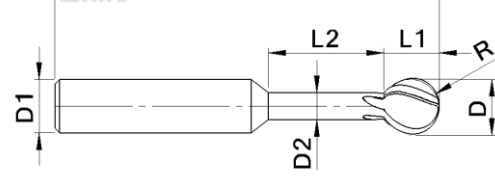
Undercutting Endmill

Straight



- D: Cutter Diameter
- L1: Length of cut
- R: Radius
- D2: Neck Diameter
- L2: Length of Neck
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flute
- Workpiece Materials.

Helix

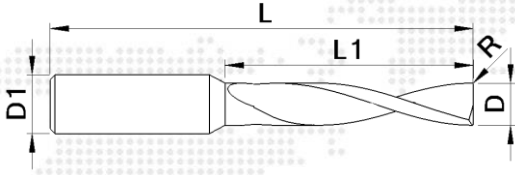


- D: Cutter Diameter
- L1: Length of cut
- R: Radius
- D2: Neck Diameter
- L2: Length of Neck
- L: Overall Length
- D1: Shank Diameter
- Cut Direction
- Flute
- Workpiece Materials.

MAKE YOUR TOOL

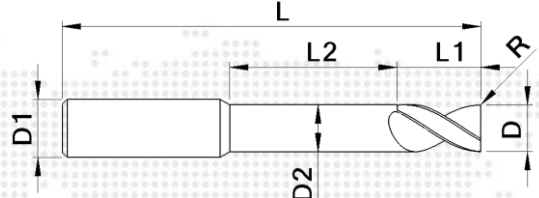
Counterbores

Flat Bottom Counterbore



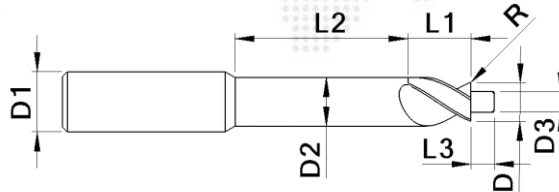
- D: Cutter Diameter
- L1: Length of cut
- L: Overall Length
- D1: Shank Diameter
- R: Radius or Chamfer
- Workpiece Materials.

Long Reach Flat Bottom Counterbore



- D: Cutter Diameter
- L1: Length of cut
- L2: Length of Neck
- D2: Neck Diameter
- L: Overall Length
- D1: Shank Diameter
- R: Radius or Chamfer
- Workpiece Materials.

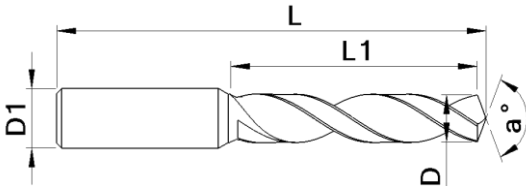
Non-cutting Point Flat Bottom Counterbore



- D3: Pilot Diameter
- L3: Length of Pilot
- R: Radius or Chamfer
- D: Cutter Diameter
- L1: Length of cut
- L2: Length of Neck
- D2: Neck Diameter
- L: Overall Length
- D1: Shank Diameter
- Workpiece Materials.

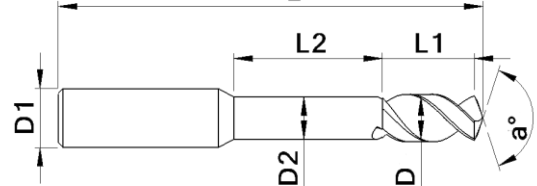
Drills

Standard Drill



- a°: Point Angle
- D: Cutter Diameter
- L1: Length of Flute
- L: Overall Length
- D1: Shank Diameter
- Workpiece Materials.

Standard Drill- Long Reach

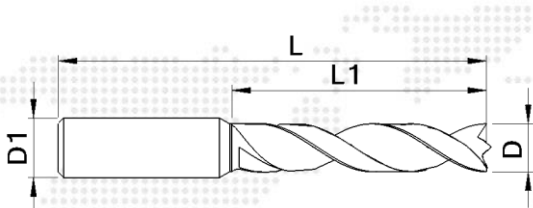


- a°: Point Angle
- D: Cutter Diameter
- L1: Length of cut
- D2: Neck Diameter
- L2: Length of Neck
- L: Overall Length
- D1: Shank Diameter

MAKE YOUR TOOL

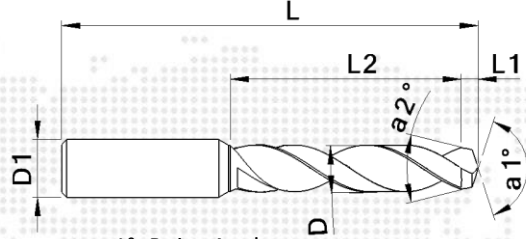
Drills (Continued)

Composite Drill – Brad Point



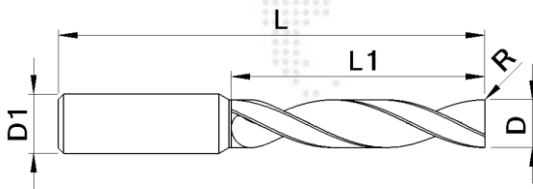
- D: Cutter Diameter
- L1: Length of cut
- L: Overall Length
- D1: Shank Diameter

Composite Drill – Double Angle



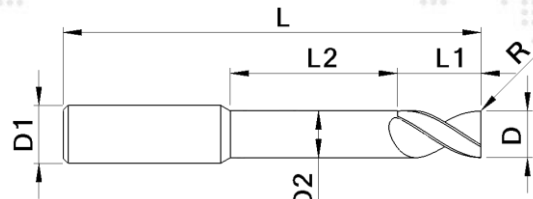
- a1°: Point Angle
- a2°: Second Point Angle
- D: Cutter Diameter
- L1: Length of Point
- L2: Length of Flute
- L: Overall Length
- D1: Shank Diameter

Flat Bottom



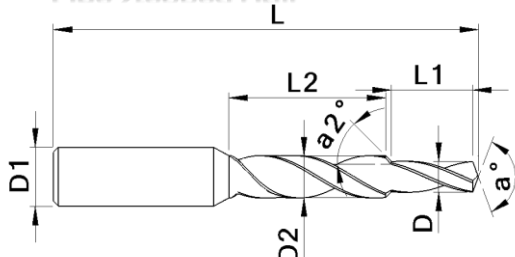
- D: Cutter Diameter
- R: Radius or Chamfer
- L1: Length of cut
- L: Overall Length
- D1: Shank Diameter

Flat Bottom-Long Reach



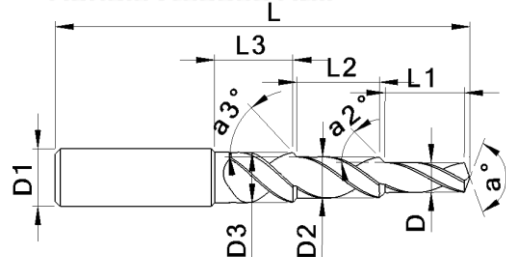
- D: Cutter Diameter
- R: Radius or Chamfer
- L1: Length of Cut
- L2: Length of Neck
- D2: Neck Diameter
- L: Overall Length
- D1: Shank Diameter

One Stepped Drill



- a1°: Point Angle
- D: Minor Cutter Diameter
- L1: Length of Minor Cut
- a2°: Secondary Point Angle
- D2: Major Diameter
- L2: Length of Major Cut
- L: Overall Length
- D1: Shank Diameter

Double Stepped Drill

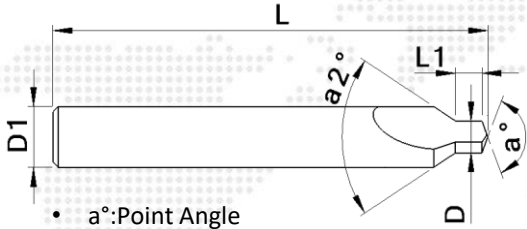


- a1°: Point Angle
- D: Minor Cutter Diameter
- L1: Length of Minor Cut
- a2°: Secondary Point Angle
- D2: Secondary Diameter
- L2: Length of Secondary Cut
- a3°: Tertiary Angle
- D3: Tertiary Diameter
- L3: Length of Tertiary Cut
- L: Overall Length
- D1: Shank Diameter

MAKE YOUR TOOL

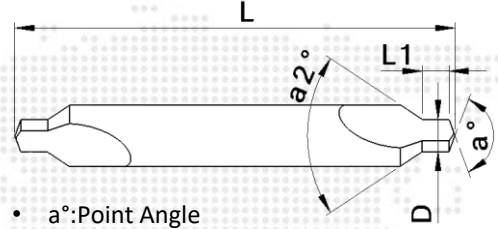
Drills & Countersinks

Combined Drill & Countersink- Single



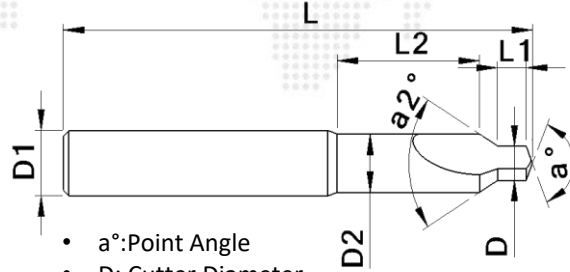
- a°: Point Angle
- D: Cutter Diameter
- L1: Drill Length
- a2°: Included Angle
- L: Overall Length
- D1: Shank Diameter

Combined Drill & Countersink- Double



- a°: Point Angle
- D: Cutter Diameter
- L1: Drill Length
- a2°: Included Angle
- L: Overall Length
- D1: Shank Diameter

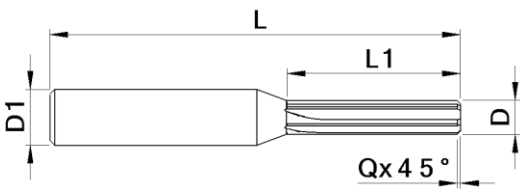
Combined Drill & Countersink- Long Reach



- a°: Point Angle
- D: Cutter Diameter
- L1: Drill Length
- a2°: Included Angle
- L2: Length of Neck
- D2: Neck Diameter
- L: Overall Length
- D1: Shank Diameter

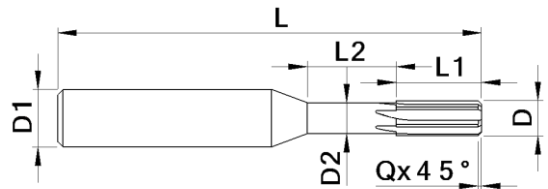
Reamers

Straight



- Q: Chamfer Length
- D: Diameter
- L1: Length of Cut
- L: Overall Length
- D1: Shank Diameter

Straight- Long Reach

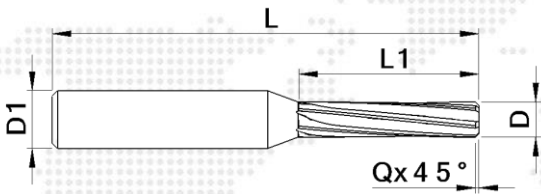


- Q: Chamfer Length
- D: Diameter
- L1: Length of Cut
- D2: Neck Diameter
- L2: Length of Neck
- L: Overall Length
- D1: Shank Diameter

MAKE YOUR TOOL

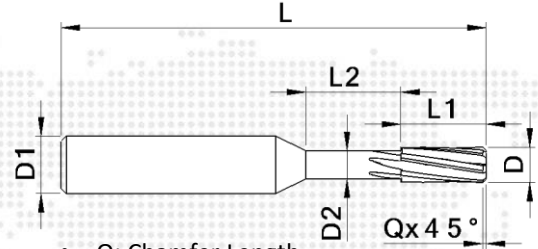
Reamers (Continued)

Helix



- Q: Chamfer Length
- D: Diameter
- L1: Length of Cut
- X1: Helix Direction
- X2: Cutting Direction
- L: Overall Length
- D1: Shank Diameter

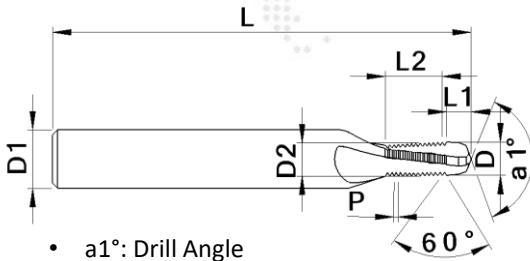
Helix- Long Reach



- Q: Chamfer Length
- D: Diameter
- L1: Length of Cut
- X1: Helix Direction
- X2: Cutting Direction
- D2: Neck Diameter
- L2: Length of Neck
- L: Overall Length
- D1: Shank Diameter

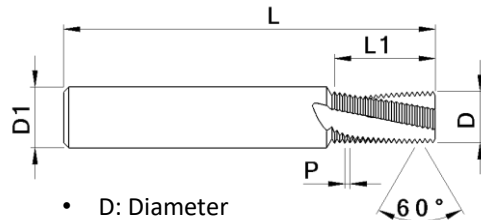
Threadmills

Combined Drill & Threadmill



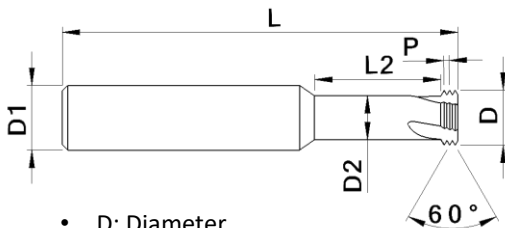
- a1°: Drill Angle
- D: Drill Diameter
- L1: Length of Drill Cut
- D2: Thread Diameter
- L2: Length of Thread Cut
- P: Pitch
- L: Overall Length
- D1: Shank Diameter

Multi Form



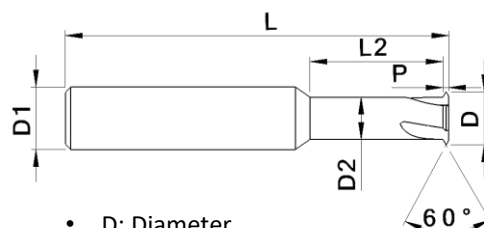
- D: Diameter
- L1: Length of Cut
- P: Pitch
- L: Overall Length
- D1: Shank Diameter

Tri-Form



- D: Diameter
- P: Pitch
- D2: Neck Diameter
- L2: Length of Neck
- L: Overall Length
- D1: Shank Diameter

Single-Form



- D: Diameter
- P: Pitch
- D2: Neck Diameter
- L2: Length of Neck
- L: Overall Length
- D1: Shank Diameter

Why FORNAX Cutting Tools?

Challenges in the custom tool supply process and order...
challenges substances your manufacturing operation faces including:



**SHORTENED
DELIVERY TIMES**

&



**INCREASE
PRODUCTIVITY**

&



**COST
REDUCTION**

Special cutting tools demands need special solutions.

You need a quick, innovative, service and result-oriented partner –



FORNAX
Cutting Tools



**Get a special tool quote in
only minutes or less.**

- Cost-reducing solutions
- Process improvements
- Alternative coatings
- Laser etching and special packing
- Comprehensive supply chain management
- Customer service in constant contact