



Leading Through Innovation

**CARBIDE & HSS**



**CENTER DRILLS**


**ZENTRIERBOHRER**

- General Purpose
- Für allgemeinen Einsatz

# SELECTION GUIDE

## CENTER DRILLS

General Purpose

ITEM	MODEL	DESCRIPTION	SIZE		PAGE
			MIN	MAX	
<b>D5303</b>		CARBIDE, CENTER DRILLS / FORM A VOLLHARTMETALL, ZENTRIERBOHRER / FORM A	D1.0	D6.3	<b>280</b>
<b>DV303</b>		HSS-EX, CENTER DRILLS / FORM A HSS-EX, ZENTRIERBOHRER / FORM A	D0.5	D6.3	<b>281</b>
<b>DV333</b>		HSS-EX, CENTER DRILLS / FORM A HSS-EX, ZENTRIERBOHRER / FORM A	D1.6	D6.3	<b>281</b>
<b>DV334</b>		HSS-EX, CENTER DRILLS EXTRA LONG / FORM A HSS-EX, ZENTRIERBOHRER / FORM A	D1.0	D5.0	<b>282</b>
<b>D1303</b>		HSS, CENTER DRILLS / FORM A HSS, ZENTRIERBOHRER / FORM A	D0.5	D10.0	<b>283</b>
<b>D1343</b>		HSS, CENTER DRILLS LEFT HELIX / FORM A HSS, ZENTRIERBOHRER / FORM A	D0.5	D8.0	<b>283</b>
<b>D1313</b>		HSS, CENTER DRILLS / FORM B HSS, ZENTRIERBOHRER / FORM B	D1.0	D6.3	<b>284</b>
<b>D1353</b>		HSS, CENTER DRILLS LEFT HELIX / FORM B HSS, ZENTRIERBOHRER / FORM B	D2.0	D6.3	<b>284</b>
<b>D1363</b>		HSS, CENTER DRILLS / FORM R HSS, ZENTRIERBOHRER / FORM R	D0.5	D8.0	<b>285</b>
<b>D1373</b>		HSS, CENTER DRILLS LEFT HELIX / FORM R HSS, ZENTRIERBOHRER / FORM R	D0.8	D5.0	<b>285</b>
<b>DV383</b>		HSS-EX, CENTER DRILLS / FORM R HSS-EX, ZENTRIERBOHRER / FORM R	D1.6	D6.3	<b>286</b>
RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDKONDITIONEN					<b>287</b>

# SOLID CARBIDE & HSS CENTER DRILLS

◎ : Excellent ○ : Good

P			H		M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
◎	◎	○			○	○	○	○	○		○
◎	◎				○	○	○	○	○		○
◎	◎				○	○	○	○	○		○
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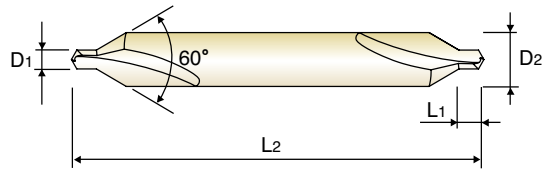


**CARBIDE, CENTER DRILLS / FORM A**

🇩🇪 VOLLHARTMETALL, ZENTRIERBOHRER / FORM A

🇫🇷 Forets carbure à centre / Forme A

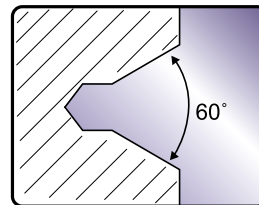
🇮🇹 PUNTE A CENTRARE IN MD / FORMA A



DIN 333
MG
h8
k12
120°
P.287

**FORM A (60°)**

EDP No.	Drill Diameter	Shank Diameter	Pilot Length	Overall Length
	D1	D2	L1	L2
D5303010	1.0	3.15	1.3	31.5
D5303912	1.25	3.15	1.6	31.5
D5303016	1.6	4	2	35.5
D5303020	2.0	5	2.5	40
D5303025	2.5	6.3	3.1	45
D5303931	3.15	8	3.9	50
D5303040	4.0	10	5	56
D5303050	5.0	12.5	6.3	63
D5303063	6.3	16	8	71



P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
◎	◎	○			○	○	○	○	○	○	

◎ : Excellent ○ : Good

i-ONE DRILLS

i-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -HIGH FEED

DREAM DRILLS -FLAT BOTTOM

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -CFRP

DREAM DRILLS -MQL

DREAM DRILLS for HIGH HARDENED STEELS

GENERAL CARBIDE DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

SUPER-GP DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

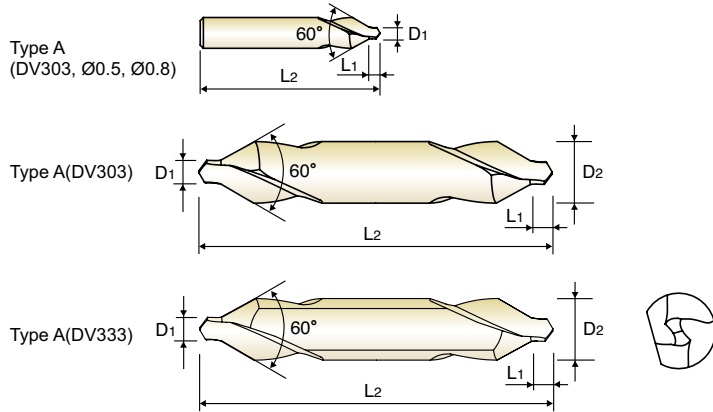
CENTER DRILLS

SPADE DRILLS

TECHNICAL DATA

**HSS-EX, CENTER DRILLS / FORM A**

HSS-EX, ZENTRIERBOHRER / FORM A  
 Forets HSS-EX à centrer / Forme A  
 PUNTE A CENTRARE PER TORNII IN HSS-EX / FORMA A



**FORM A (60°)**

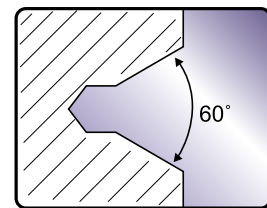
EDP No.	Drill Diameter	Shank Diameter	Pilot Length	Overall Length
	D1	D2	L1	L2
DV303005	0.5	3.15	0.8	25
DV303008	0.8	3.15	1.1	25
DV303010	1.0	3.15	1.3	31.5
DV303912	1.25	3.15	1.6	31.5
DV303016	1.6	4	2	35.5
DV303020	2.0	5	2.5	40
DV303025	2.5	6.3	3.1	45
DV303931	3.15	8	3.9	50
DV303040	4.0	10	5	56
DV303050	5.0	12.5	6.3	63
DV303063	6.3	16	8	71

► Under 1.0mm : Single End

**FORM A (60°), FLAT**

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Pilot Length	Overall Length
	D1	D2	L1	L2
DV333016	1.6	4	2	35.5
DV333020	2.0	5	2.5	40
DV333025	2.5	6.3	3.1	45
DV333931	3.15	8	3.9	50
DV333040	4.0	10	5	56
DV333050	5.0	12.5	6.3	63
DV333063	6.3	16	8	71



◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	○	○	

i-ONE DRILLS

i-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -HIGH FEED

DREAM DRILLS -FLAT BOTTOM

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -CFRP

DREAM DRILLS -MQL

DREAM DRILLS for HIGH HARDENED STEELS

GENERAL CARBIDE DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

SUPER-GP DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

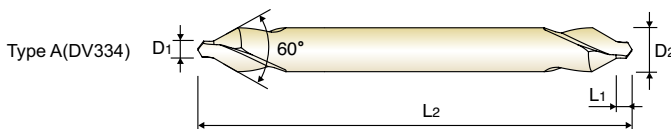
SPADE DRILLS

TECHNICAL DATA



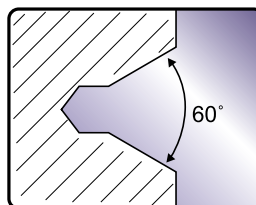
**HSS-EX, CENTER DRILLS EXTRA LONG / FORM A**

HSS-EX, ZENTRIERBOHRER / FORM A  
 Forets HSS-EX à centre / Forme A, série extra-longue  
 PUNTE A CENTRARE PER TORNI IN HSS-EX / FORMA A



**EXTRA LONG / FORM A (60°)**

EDP No.	Drill Diameter	Shank Diameter	Pilot Length	Overall Length
	D1	D2	L1	L2
DV334010	1.0	4	1.3	120
DV334016	1.6	5	2	120
DV334020	2.0	6	2.5	120
DV334025	2.5	8	3.1	120
DV334931	3.15	10	3.9	120
DV334040	4.0	12	5	120
DV334050	5.0	14	6.3	120



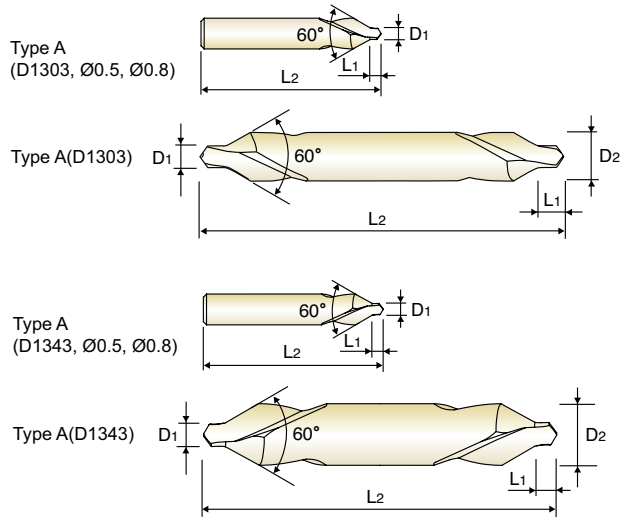
P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
◎	◎				○	○	○	○	○		○

◎ : Excellent ○ : Good

- i-ONE DRILLS
- i-DREAM DRILLS
- DREAM DRILLS -GENERAL
- DREAM DRILLS -HIGH FEED
- DREAM DRILLS -FLAT BOTTOM
- DREAM DRILLS -INOX
- DREAM DRILLS -ALU
- DREAM DRILLS -CFRP
- DREAM DRILLS -MQL
- DREAM DRILLS for HIGH HARDENED STEELS
- GENERAL CARBIDE DRILLS
- MULTI-1 DRILLS
- HPD DRILLS
- GOLD-P DRILLS
- SUPER-GP DRILLS
- STRAIGHT SHANK DRILLS
- TAPER SHANK DRILLS
- NC-SPOTTING DRILLS
- CENTER DRILLS
- SPADE DRILLS
- TECHNICAL DATA

**HSS, CENTER DRILLS / FORM A**

HSS, ZENTRIERBOHRER / FORM A  
 Forets HSS à centrer / Forme A  
 PUNTE A CENTRARE PER TORNI IN HSS / FORMA A



**FORM A (60°)**

EDP No.	Drill Diameter D1	Shank Diameter D2	Pilot Length L1	Overall Length L2
D1303005	0.5	3.15	0.8	25
D1303008	0.8	3.15	1.1	25
D1303010	1.0	3.15	1.3	31.5
D1303912	1.25	3.15	1.6	31.5
D1303016	1.6	4	2	35.5
D1303020	2.0	5	2.5	40
D1303025	2.5	6.3	3.1	45
D1303931	3.15	8	3.9	50
D1303040	4.0	10	5	56
D1303050	5.0	12.5	6.3	63
D1303063	6.3	16	8	71
D1303080	8.0	20	10.1	80
D1303100	10.0	25	12.8	100

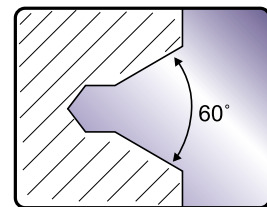
► Under 1.0mm : Single End

**LEFT HELIX / FORM A (60°)**

Unit : mm

EDP No.	Drill Diameter D1	Shank Diameter D2	Pilot Length L1	Overall Length L2
D1343005	0.5	3.15	0.8	25
D1343008	0.8	3.15	1.1	25
D1343010	1.0	3.15	1.3	31.5
D1343912	1.25	3.15	1.6	31.5
D1343016	1.6	4	2	35.5
D1343020	2.0	5	2.5	40
D1343025	2.5	6.3	3.1	45
D1343931	3.15	8	3.9	50
D1343040	4.0	10	5	56
D1343050	5.0	12.5	6.3	63
D1343063	6.3	16	8	71
D1343080	8.0	20	10.1	80

► Under 1.0mm : Single End



© : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	○	○	

i-ONE DRILLS

i-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -HIGH FEED

DREAM DRILLS -FLAT BOTTOM

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -CFRP

DREAM DRILLS -MQL

DREAM DRILLS for HIGH HARDENED STEELS

GENERAL CARBIDE DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

SUPER-GP DRILLS

STRAIGHT SHANK DRILLS

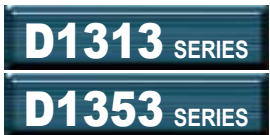
TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

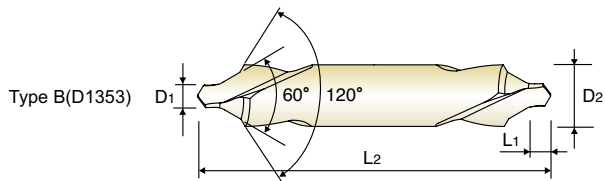
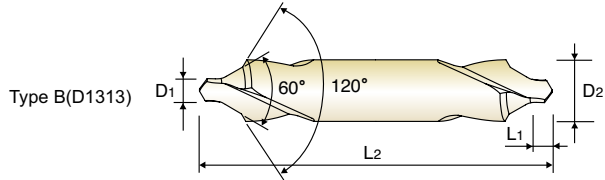
SPADE DRILLS

TECHNICAL DATA



**HSS, CENTER DRILLS / FORM B**

HSS, ZENTRIERBOHRER / FORM B  
 Forets HSS à centrer / Forme B  
 PUNTE A CENTRARE PER TORNI IN HSS / FORMA B



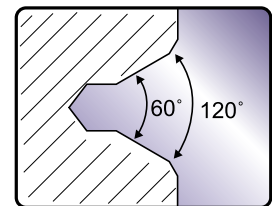
**FORM B (60° + 120°)**

**LEFT HELIX / FORM B (60° + 120°)**

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Pilot Length	Overall Length
	D1	D2	L1	L2
D1313010	1.0	4	1.3	35.5
D1313912	1.25	5	1.6	40
D1313016	1.6	6.3	2	45
D1313020	2.0	8	2.5	50
D1313025	2.5	10	3.1	55
D1313931	3.15	11.2	3.9	60
D1313040	4.0	14	5	67
D1313050	5.0	18	6.3	75
D1313063	6.3	20	8	80

EDP No.	Drill Diameter	Shank Diameter	Pilot Length	Overall Length
	D1	D2	L1	L2
D1353020	2.0	8	2.5	50
D1353025	2.5	10	3.1	55
D1353931	3.15	11.2	3.9	60
D1353040	4.0	14	5	67
D1353063	6.3	20	8	80



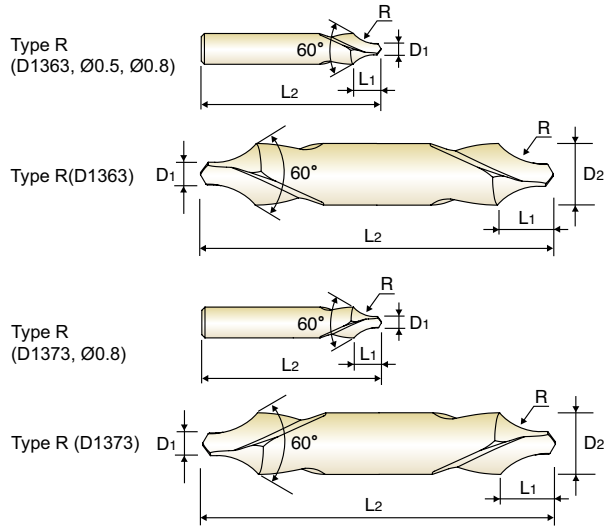
P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
~HB225	HB225~325	HRC30~45	HRC45~55								HRC55~
◎	◎				○	○	○	○	○	○	

◎ : Excellent ○ : Good

- i-ONE DRILLS
- i-DREAM DRILLS
- DREAM DRILLS -GENERAL
- DREAM DRILLS -HIGH FEED
- DREAM DRILLS -FLAT BOTTOM
- DREAM DRILLS -INOX
- DREAM DRILLS -ALU
- DREAM DRILLS -CFRP
- DREAM DRILLS -MQL
- DREAM DRILLS for HIGH HARDENED STEELS
- GENERAL CARBIDE DRILLS
- MULTI-1 DRILLS
- HPD DRILLS
- GOLD-P DRILLS
- SUPER-GP DRILLS
- STRAIGHT SHANK DRILLS
- TAPER SHANK DRILLS
- NC-SPOTTING DRILLS
- CENTER DRILLS
- SPADE DRILLS
- TECHNICAL DATA

**HSS, CENTER DRILLS / FORM R**

HSS, ZENTRIERBOHRER / FORM R  
 Forets HSS à centrer / Forme R  
 PUNTE A CENTRARE PER TORNII IN HSS / FORMA R



**FORM R**

EDP No.	Drill Diameter	Shank Diameter	Pilot Length (Include Radius)	Overall Length	Radius
	D1	D2	L1	L2	R
D1363005	0.5	3.15	2.12	25	1.25
D1363008	0.8	3.15	2.65	25	2
D1363010	1.0	3.15	3	31.5	2.5
D1363912	1.25	3.15	3.35	31.5	3.15
D1363016	1.6	4	4.25	35.5	4
D1363020	2.0	5	5.3	40	5
D1363025	2.5	6.3	6.7	45	6.3
D1363931	3.15	8	8.5	50	8
D1363040	4.0	10	10.6	56	10
D1363050	5.0	12.5	13.2	63	12.5
D1363063	6.3	16	17	71	16
D1363080	8.0	20	21.2	80	20

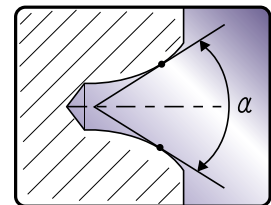
▶ Under 1.0mm : Single End

**LEFT HELIX / FORM R**

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Pilot Length (Include Radius)	Overall Length	Radius
	D1	D2	L1	L2	R
D1373008	0.8	3.15	2.65	25	2
D1373010	1.0	3.15	3	31.5	2.5
D1373912	1.25	3.15	3.35	31.5	3.15
D1373016	1.6	4	4.25	35.5	4
D1373020	2.0	5	5.3	40	5
D1373025	2.5	6.3	6.7	45	6.3
D1373931	3.15	8	8.5	50	8
D1373040	4.0	10	10.6	56	10
D1373050	5.0	12.5	13.2	63	12.5

▶ Under 1.0mm : Single End



◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	○	○	○

i-ONE DRILLS

i-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -HIGH FEED

DREAM DRILLS -FLAT BOTTOM

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -CFRP

DREAM DRILLS -MQL

DREAM DRILLS for HIGH HARDENED STEELS

GENERAL CARBIDE DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

SUPER-GP DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

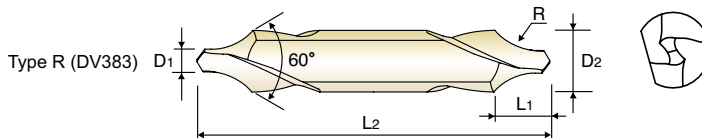
SPADE DRILLS

TECHNICAL DATA

**HSS-EX, CENTER DRILLS / FORM R**

- HSS-EX, ZENTRIERBOHRER / FORM R**
- Forets HSS-EX à centre / Forme R**
- PUNTE A CENTRARE PER TORNI IN HSS-EX / FORMA R**

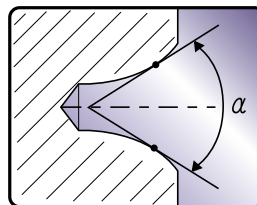
- i-ONE DRILLS
- i-DREAM DRILLS
- DREAM DRILLS -GENERAL
- DREAM DRILLS -HIGH FEED
- DREAM DRILLS -FLAT BOTTOM
- DREAM DRILLS -INOX
- DREAM DRILLS -ALU
- DREAM DRILLS -CFRP
- DREAM DRILLS -MQL
- DREAM DRILLS for HIGH HARDENED STEELS
- GENERAL CARBIDE DRILLS
- MULTI-1 DRILLS
- HPD DRILLS
- GOLD-P DRILLS
- SUPER-GP DRILLS
- STRAIGHT SHANK DRILLS
- TAPER SHANK DRILLS
- NC-SPOTTING DRILLS
- CENTER DRILLS
- SPADE DRILLS
- TECHNICAL DATA



**FORM R / FLAT**

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Pilot Length (Include Radius)	Overall Length	Radius
	D1	D2	L1	L2	R
DV383016	1.6	4	4.25	35.5	4
DV383020	2.0	5	5.3	40	5
DV383025	2.5	6.3	6.7	45	6.3
DV383931	3.15	8	8.5	50	8
DV383040	4.0	10	10.6	56	10
DV383050	5.0	12.5	13.2	63	12.5
DV383063	6.3	16	17	71	16



P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRC30~45	HRc45~55	HRc55~							
◎	◎				○	○	○	○	○		○

◎ : Excellent ○ : Good

**CARBIDE, CENTER DRILLS**  
**VOLLHARTMETALL ZENTRIERBOHRER**

**D5303** SERIES

WORK MATERIAL	P						M	
	MILD STEELS		ALLOY STEELS				STAINLESS STEELS	
	< 700 N/mm <sup>2</sup>		~ HRc 23		~ HRc 32			
HARDNESS								
DIAMETER	SPEED	FEED	SPEED	FEED	SPEED	FEED	SPEED	FEED
1.0	30 ~ 50	0.01~0.03	30 ~ 50	0.01~0.03	20 ~ 40	0.01~0.03	15 ~ 25	0.01~0.03
2.0		0.01~0.035		0.01~0.035		0.01~0.035		
3.0		0.015~0.05		0.015~0.05		0.015~0.05		
4.0		0.02~0.06		0.02~0.06		0.02~0.06		
5.0		0.03~0.07		0.03~0.07		0.03~0.07		
6.0		0.04~0.07		0.04~0.07		0.04~0.07		

SPEED = m/min.  
 FEED = mm/rev.

i-ONE DRILLS

i-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -HIGH FEED

DREAM DRILLS -FLAT BOTTOM

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -CFRP

DREAM DRILLS -MQL

DREAM DRILLS for HIGH HARDENED STEELS

GENERAL CARBIDE DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

SUPER-GP DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

TECHNICAL DATA

i-ONE  
DRILLSi-DREAM  
DRILLSDREAM  
DRILLS  
-GENERALDREAM  
DRILLS  
-HIGH FEEDDREAM  
DRILLS  
-FLAT BOTTOMDREAM  
DRILLS  
-INOXDREAM  
DRILLS  
-ALUDREAM  
DRILLS  
-CFRPDREAM  
DRILLS  
-MQLDREAM DRILLS  
for HIGH  
HARDENED  
STEELSGENERAL  
CARBIDE  
DRILLSMULTI-1  
DRILLS

HPD DRILLS

GOLD-P  
DRILLSSUPER-GP  
DRILLSSTRAIGHT  
SHANK  
DRILLSTAPER  
SHANK  
DRILLSNC-SPOTTING  
DRILLSCENTER  
DRILLSSPADE  
DRILLSTECHNICAL  
DATA
**HSS & HSS-EX, CENTER DRILLS**  
**HSS & HSS-EX, ZENTRIERBOHRER**
**DV303, DV333, DV334, D1303, D1343, D1313, D1353, D1363, D1373, DV383** SERIES

WORK MATERIAL	P						M	
	MILD STEELS		ALLOY STEELS				STAINLESS STEELS	
	< 700 N/mm <sup>2</sup>		~ HRc 23		~ HRc 32			
HARDNESS								
DIAMETER	SPEED	FEED	SPEED	FEED	SPEED	FEED	SPEED	FEED
2.0	30 ~ 45	0.02~0.05	25 ~ 30	0.02~0.05	15 ~ 25	0.01~0.03	6 ~ 10	0.01~0.03
3.0		0.06		0.06		0.04		0.04
6.0		0.08		0.08		0.06		0.06
10.0		0.15		0.15		0.10		0.10

 SPEED = m/min.  
 FEED = mm/rev.