

HSS



Being the best through innovation



CENTER DRILLS

ZENTRIERBOHRER

- General Purpose (HSS & HSS-EX)
- Für allgemeinen Einsatz (HSS & HSS-EX)

SELECTION GUIDE

CENTER DRILLS

General Purpose

ITEM	MODEL	DESCRIPTION	SIZE		PAGE
			MIN	MAX	
DV303		HSS-EX, CENTER DRILLS / FORM A HSS-EX, ZENTRIERBOHRER / FORM A	D0.5	D6.3	242
DV333		HSS-EX, CENTER DRILLS / FORM A HSS-EX, ZENTRIERBOHRER / FORM A	D1.6	D6.3	242
DV334		HSS-EX, CENTER DRILLS EXTRA LONG / FORM A HSS-EX, ZENTRIERBOHRER / FORM A	D1.0	D5.0	243
D1303		HSS, CENTER DRILLS / FORM A HSS, ZENTRIERBOHRER / FORM A	D0.5	D10.0	244
D1343		HSS, CENTER DRILLS LEFT HELIX / FORM A HSS, ZENTRIERBOHRER / FORM A	D0.5	D8.0	244
D1313		HSS, CENTER DRILLS / FORM B HSS, ZENTRIERBOHRER / FORM B	D1.0	D6.3	245
D1353		HSS, CENTER DRILLS LEFT HELIX / FORM B HSS, ZENTRIERBOHRER / FORM B	D2.0	D6.3	245
D1363		HSS, CENTER DRILLS / FORM R HSS, ZENTRIERBOHRER / FORM R	D0.5	D8.0	246
D1373		HSS, CENTER DRILLS LEFT HELIX / FORM R HSS, ZENTRIERBOHRER / FORM R	D0.8	D5.0	246
DV383		HSS-EX, CENTER DRILLS / FORM R HSS-EX, ZENTRIERBOHRER / FORM R	D1.6	D6.3	247
RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDKONDITIONEN					248

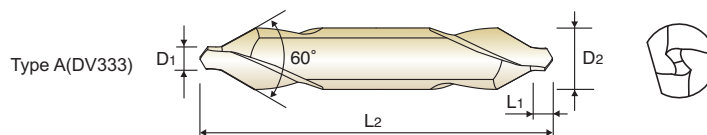
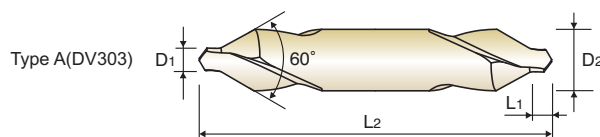
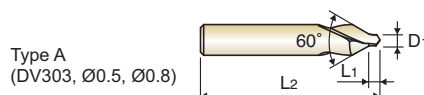
HSS CENTER DRILLS

◎ : Excellent
○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze	CFRP
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~								
◎	◎				○	○	○	○	○	○	○	
◎	◎				○	○	○	○	○	○	○	
◎	◎				○	○	○	○	○	○	○	
◎	◎				○	○	○	○	○	○	○	
◎	◎				○	○	○	○	○	○	○	
◎	◎				○	○	○	○	○	○	○	
◎	◎				○	○	○	○	○	○	○	
◎	◎				○	○	○	○	○	○	○	
◎	◎				○	○	○	○	○	○	○	
◎	◎				○	○	○	○	○	○	○	



HSS-EX, CENTER DRILLS FORM A HSS-EX, ZENTRIERBOHRER FORM A


FORM A (60°)

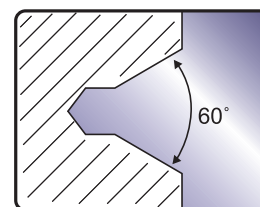
EDP No.	Drill Diameter D1	Shank Diameter D2	Pilot Length L1	Overall Length L2
DV303005	0.5	3.15	0.8	25
DV303008	0.8	3.15	1.1	25
DV303010	1.0	3.15	1.3	31.5
DV303912	1.25	3.15	1.6	31.5
DV303016	1.6	4	2	35.5
DV303020	2.0	5	2.5	40
DV303025	2.5	6.3	3.1	45
DV303931	3.15	8	3.9	50
DV303040	4.0	10	5	56
DV303050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

► Under 1.0mm : Single End

FORM A (60°), FLAT

Unit : mm

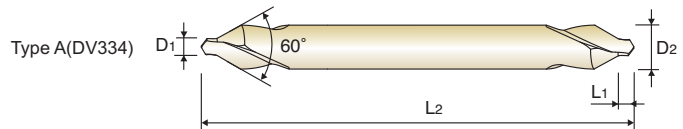
EDP No.	Drill Diameter D1	Shank Diameter D2	Pilot Length L1	Overall Length L2
DV333016	1.6	4	2	35.5
DV333020	2.0	5	2.5	40
DV333025	2.5	6.3	3.1	45
DV333931	3.15	8	3.9	50
DV333040	4.0	10	5	56
DV333050	5.0	12.5	6.3	63
DV333063	6.3	16	8	71



◎ : Excellent ○ : Good

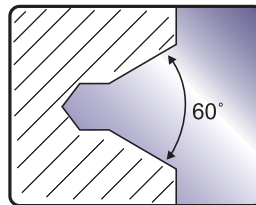
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze	CFRP
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~								
◎	◎				○	○	○	○	○	○	○	

HSS-EX, CENTER DRILLS FORM A HSS-EX, ZENTRIERBOHRER FORM A



EXTRA LONG / FORM A (60°)

EDP No.	Drill Diameter D1	Shank Diameter D2	Pilot Length L1	Overall Length 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

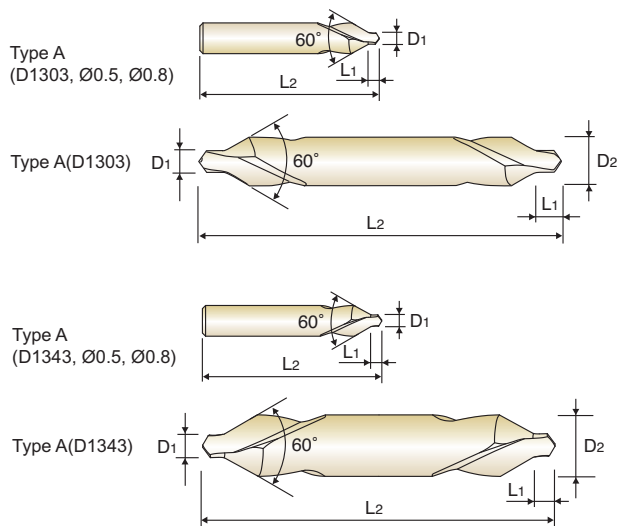


Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze	CFRP
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~								
◎	◎				○	○	○	○	○	○	○	

◎ : Excellent ○ : Good



HSS, CENTER DRILLS FORM A HSS, ZENTRIERBOHRER FORM A


**DIN
333**
HSS
h8
k12
120°


P.248

**DIN
333**
HSS
h8
k12
120°


P.248

FORM A (60°)
LEFT HELIX / FORM A (60°)

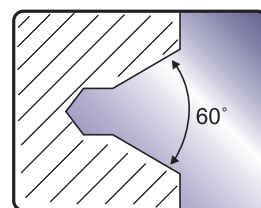
Unit : mm

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

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

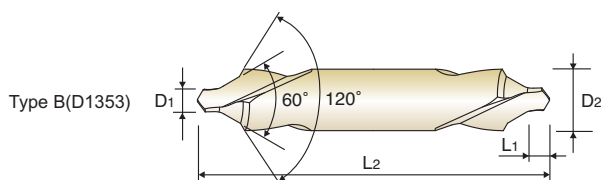
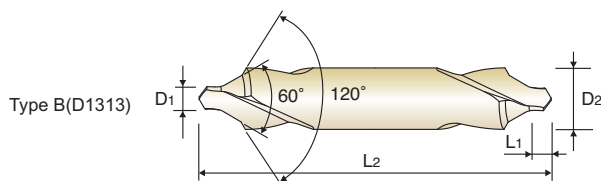
► Under 1.0mm : Single End



◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze	CFRP
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~								
◎	◎				○	○	○	○	○	○	○	

HSS, CENTER DRILLS FORM B HSS, ZENTRIERBOHRER FORM B



DIN 333 HSS h8 k12 120° P.248

DIN 333 HSS h8 k12 120° P.248

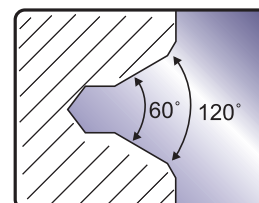
FORM B (60° + 120°)

EDP No.	Drill Diameter D1	Shank Diameter D2	Pilot Length L1	Overall Length 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

LEFT HELIX / FORM B (60° + 120°)

Unit : mm

EDP No.	Drill Diameter D1	Shank Diameter D2	Pilot Length L1	Overall Length 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

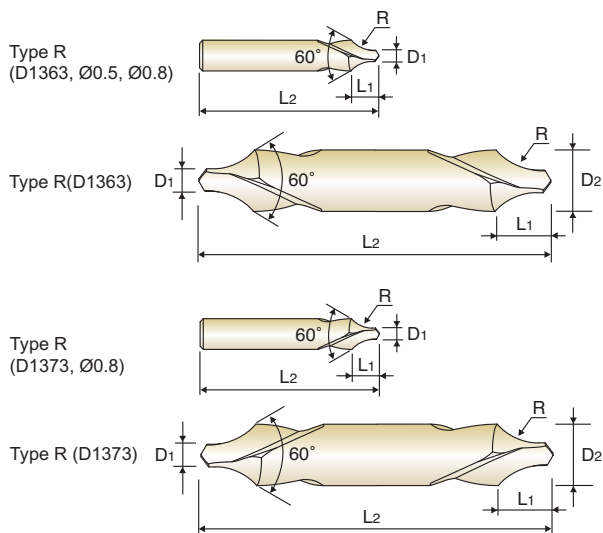


◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze	CFRP
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~								
◎	◎				○	○	○	○	○	○	○	



HSS, CENTER DRILLS FORM R HSS, ZENTRIERBOHRER FORM R


FORM R
LEFT HELIX / FORM R

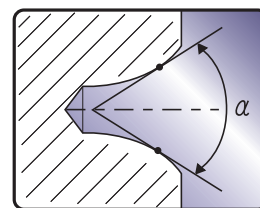
Unit : mm

EDP No.	Drill Diameter D1	Shank Diameter D2	Pilot Length (Include Radius) L1	Overall Length L2	Radius 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

EDP No.	Drill Diameter D1	Shank Diameter D2	Pilot Length (Include Radius) L1	Overall Length L2	Radius 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

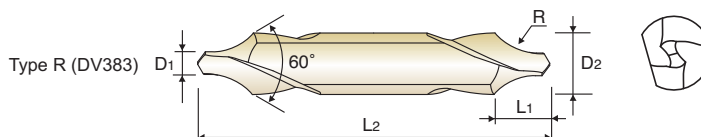
► Under 1.0mm : Single End



◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze	CFRP
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~								
◎	◎				○	○	○	○	○	○	○	

HSS-EX, CENTER DRILLS FORM R HSS-EX, ZENTRIERBOHRER FORM R

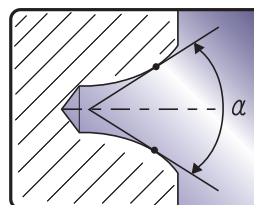


DIN 333 HSS EX h8 k12 120° P.248

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



◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze	CFRP
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~								
◎	◎				○	○	○	○	○	○	○	


HSS & HSS-EX, CENTER DRILLS
HSS & HSS-EX, ZENTRIERBOHRER
DV303, DV333, DV334, D1303, D1343, D1313, D1353, D1363, D1373, DV383 SERIES

WORK MATERIAL	MILD STEEL		ALLOY STEEL				STAINLESS STEEL	
HARDNESS	< 700 N/mm ²		~ HRc 23		~ HRc 32			
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(Shank Dia.) = m/min
 FEED(Drill Dia.) = mm/rev