

The effective neck length shown is not an exact value and to avoid contact with the workpiece, we recommend the user control the precise value of this length.

※R2 or higher is not applied to Back draft type.

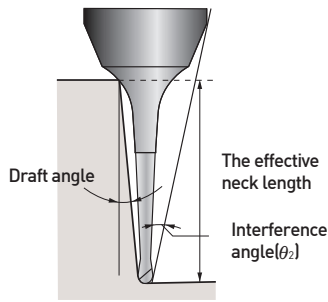
ZSTNB20... series



EDP. No.	Dimension(mm)										Effective Neck Length					STOCK	
	R	D	L ₂	θ	L ₁	d ₁	d ₂	L ₃	d ₃	App. L	θ_2	0.5°	1°	1.5°	2°		3°
ZSTNB2002-1-04	0.1	0.2	1	0.4	0.15	0.17	0.18	50	4	1.35	10.9	1.5	1.7	1.8	2.0	2.3	
ZSTNB2002-1.5-04			1.5	0.4			0.19			1.77	10.4	2.0	2.2	2.4	2.6	2.9	
ZSTNB2002-2-09			2	0.9			0.23			1.10	10.1	x	2.8	3.1	3.4	3.9	
ZSTNB2002-2.5-09			2.5	0.9			0.24			1.10	9.6	x	3.3	3.7	4.0	4.5	
ZSTNB2003-2-04	0.15	0.3	2	0.4	0.25	0.28	0.29	50	4	2.19	10.0	2.5	2.8	3.0	3.2	3.5	
ZSTNB2003-3-09			3	0.9			0.36			1.20	9.3	x	3.8	4.2	4.5	5.1	
ZSTNB2003-4-09			4	0.9			0.39			1.20	8.6	x	4.8	5.3	5.7	6.3	
ZSTNB2004-2-04	0.2	0.4	2	0.4	0.3	0.37	0.39	50	4	2.20	10.0	2.5	2.8	3.0	3.2	3.5	
ZSTNB2004-3-04			3	0.4			0.41			2.44	9.1	3.6	3.9	4.1	4.4	4.8	
ZSTNB2004-4-04			4	0.4			0.42			2.44	8.4	4.7	5.2	5.6	5.9	6.5	
ZSTNB2004-4-09			4	0.9			0.49			1.25	8.5	x	4.8	5.3	5.7	6.3	
ZSTNB2004-5-04			5	0.4			0.44			2.44	7.8	5.7	6.3	6.7	7.1	7.7	
ZSTNB2004-5-09			5	0.9			0.52			1.25	7.9	x	5.9	6.4	6.8	7.5	
ZSTNB2005-4-04	0.25	0.5	4	0.4	0.35	0.47	0.52	50	4	2.49	8.4	4.6	5.0	5.3	5.5	5.9	
ZSTNB2005-8-09			8	0.9			0.71			1.30	6.5	x	8.9	9.6	10.1	10.9	
ZSTNB2005-12-09			12				0.84			1.30	5.3	x	13.0	13.9	14.5	15.4	
ZSTNB20054-2-04	0.27	0.54	2	0.4	0.37	0.52	0.54	50	4	1.80	10.0	2.3	2.5	2.7	2.8	3.0	
ZSTNB20054-4-04			4				0.57			1.80	8.4	4.5	4.9	5.2	5.5	5.9	
ZSTNB20054-5-04			5				0.59			1.80	7.8	5.5	6.0	6.3	6.6	7.1	
ZSTNB20054-6-04			6				0.60			1.80	7.2	6.7	7.3	7.8	8.2	8.8	
ZSTNB20054-6.5-04			6.5				0.61			1.80	7.0	7.2	7.9	8.3	8.7	9.4	
ZSTNB20054-7-04			7				0.61			1.80	6.8	7.7	8.4	8.9	9.3	10.0	
ZSTNB2006-2-04	0.3	0.6	2	0.4	0.4	0.57	0.59	50	4	2.17	10.0	2.4	2.5	2.7	2.8	3.0	
ZSTNB2006-4-04			4				0.62			2.54	8.4	4.6	5.0	5.2	5.5	5.9	
ZSTNB2006-6-04			6				0.65			2.54	7.2	6.8	7.4	7.8	8.2	8.8	
ZSTNB2006-6-09			6	0.9			0.75			1.35	7.3	x	6.9	7.5	7.9	8.6	
ZSTNB2006-8-09			8	0.81			1.35			6.4	x	8.9	9.6	10.1	10.9		
ZSTNB2006-10-04			10	0.4			0.70			2.54	5.6	10.8	11.7	12.2	12.7	13.5	
ZSTNB2006-10-09			10	0.87			1.35			5.7	x	11.0	11.8	12.3	13.2		
ZSTNB2006-12-09			12	0.9			0.93			1.35	5.2	x	13.0	13.9	14.5	15.4	
ZSTNB2006-15-04			15	0.4			0.77			2.54	4.4	15.9	17.0	17.6	18.2	19.2	
ZSTNB2006-15-09			15	0.9			1.03			1.35	4.5	x	16.1	17.1	17.7	18.8	

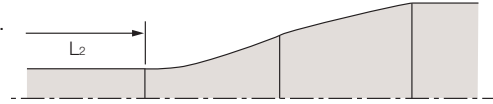
X No application
- No interference

※ These tools are manufactured based on order received.



2 FLUTE, TAPER NECK BACK DRAFT TYPE

- If the workpiece has draft angle, the interference length will be longer than the L_2 .
- Please refer to the effective neck length for the various draft angles.
- In addition, the angle at which the tool will interfere with the workpiece is shown as the "interference angle θ_2 ", and should also be referred to.

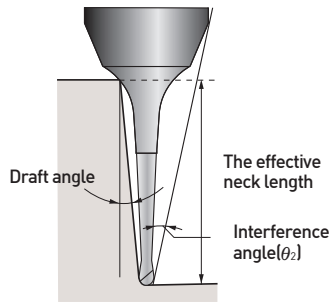


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EDP. No.	Dimension(mm)										Effective Neck Length					STOCK	
	R	D	L ₂	θ	L ₁	d ₁	d ₂	L ₃	d ₃	App. L	θ_2	0.5°	1°	1.5°	2°		3°
ZSTNB2008-4-04	0.4	0.8	4	0.4	0.5	0.77	0.82	50	4	2.64	8.3	4.6	4.9	5.2	5.5	5.9	
ZSTNB2008-6-04			6				0.85			2.64	7.1	6.6	7.1	7.5	7.7	8.3	
ZSTNB2008-8-09			8	0.9			1.01	55		1.45	6.3	x	8.9	9.6	10.1	10.9	
ZSTNB2008-12-09			12				1.13			1.45	5.0	x	13.0	13.9	14.5	15.4	
ZSTNB2008-16-09			16	1.26			1.45	4.2		x	17.1	18.1	18.8	19.9			
ZSTNB2009-4-04	0.45	0.9	4	0.4	0.6	0.86	0.91	50	4	3.46	8.2	4.5	4.7	4.9	5.1	5.4	
ZSTNB2009-8-04			8				0.96			3.46	6.1	8.7	9.3	9.7	10.0	10.6	
ZSTNB2009-12-04			12				1.02	3.46		4.8	12.9	13.8	14.4	14.9	15.7		
ZSTNB2009-16-04			16				1.08	3.46		4.0	17.0	18.0	18.7	19.3	20.5		
ZSTNB2009-18-04			18				1.10	3.46		3.7	19.1	20.1	20.9	21.5	23.1		
ZSTNB2009-20-04			20				1.13	3.46		3.4	21.1	22.2	23.0	23.6	25.6		
ZSTNB2009-22-04			22				1.16	3.46		3.2	23.1	24.3	25.1	25.8	28.2		
ZSTNB2009-24-04			24				1.19	3.46		3.0	25.2	26.4	27.2	27.9	-		
ZSTNB2010-6-04	0.5	1	6	0.4	0.8	0.94	1.01	50	6	5.09	8.3	6.8	7.2	7.5	7.8	8.3	
ZSTNB2010-8-04			8				1.04			5.09	7.5	8.8	9.3	9.7	10.0	10.6	
ZSTNB2010-10-04			10				1.07			5.09	6.8	11.0	11.7	12.3	12.7	13.5	
ZSTNB2010-10-09			10	0.9			1.23	60		2.70	6.9	x	11.2	11.9	12.4	13.2	
ZSTNB2010-15-09			15				1.39			2.70	5.7	x	16.2	17.1	17.8	18.8	
ZSTNB2010-20-04			20	0.4			1.21	65		5.09	4.7	21.2	22.3	23.0	23.6	25.7	
ZSTNB2010-20-09			20	0.9			1.54			2.70	4.8	x	21.3	22.4	23.1	24.6	
ZSTNB2010-25-09			25	0.4			1.70	70		2.70	4.2	x	26.4	27.6	28.4	30.8	
ZSTNB2010-30-04			30	1.35			5.09			3.6	31.3	32.7	33.6	34.8	38.5		
ZSTNB2010-30-09			30	0.9			1.86	75		2.70	3.7	x	31.4	32.8	33.7	36.9	
ZSTNB2010-35-09			35				2.02			2.70	3.3	x	36.5	38.0	39.0	43.1	
ZSTNB2010-40-09			40				2.17			2.70	3.0	x	41.6	43.2	44.4	-	
ZSTNB2010-50-09			50	2.49			2.70	2.5		x	51.7	53.5	55.5	-			
ZSTNB2010-60-09			60	2.80			2.70	2.2		x	61.8	63.8	66.6	-			
ZSTNB2010-70-09			70	3.11			2.70	1.9		x	71.9	74.0	-	-			
ZSTNB2015-8-04	0.75	1.5	8	0.4	1.35	1.42	1.51	55	6	7.07	7.3	8.9	9.4	9.7	10.0	10.6	
ZSTNB2015-10-04			10				1.54			7.07	6.6	10.9	11.5	11.9	12.2	12.9	

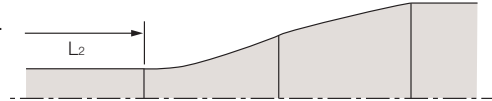
x No application
- No interference

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2 FLUTE, TAPER NECK BACK DRAFT TYPE

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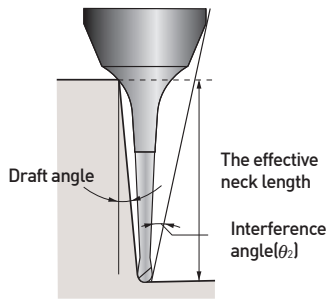


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EDP. No.	Dimension(mm)										Effective Neck Length					STOCK						
	R	D	L ₂	θ	L ₁	d ₁	d ₂	L ₃	d ₃	App. L	θ_2	0.5°	1°	1.5°	2°		3°					
ZSTNB2015-12-04	0.75	1.5	12	0.4	1.35	1.42	1.57	55	6	7.07	6.0	13.0	13.6	14.0	14.4	15.4						
ZSTNB2015-15-09			15	0.9			1.85	60		3.89	5.4	x	16.4	17.2	17.8	18.8						
ZSTNB2015-20-09			20				2.01	65		3.89	4.5	x	21.4	22.4	23.2	24.7						
ZSTNB2015-30-09			30				2.32	75		3.89	3.4	x	31.5	32.9	33.7	37.0						
ZSTNB2018-4-04	0.9	1.8	4	0.4	1.6	1.73	1.76	50	6	4.38	9.2	4.6	4.8	4.9	5.1	5.4						
ZSTNB2018-8-04			8				1.82			6.61	7.1	8.6	9.0	9.2	9.4	10.2						
ZSTNB2018-12-04			12				1.88			6.61	5.8	12.9	13.5	14.0	14.4	15.4						
ZSTNB2018-16-04			16				1.93	6.61		4.9	17.0	17.7	18.3	18.7	20.5							
ZSTNB2018-20-04			20				1.99	6.61		4.3	21.2	22.3	23.0	23.6	25.6							
ZSTNB2018-24-04			24				2.04	6.61		3.8	25.3	26.5	27.3	27.9	30.8							
ZSTNB2018-28-04			28				2.10	6.61		3.4	29.4	30.6	31.5	32.4	35.9							
ZSTNB2018-32-04			32				2.15	6.61		3.0	33.4	34.8	35.7	37.1	-							
ZSTNB2018-36-04			36				2.21	6.61		2.8	37.5	38.9	39.9	41.7	-							
ZSTNB2018-38-04			38				2.24	6.61		2.7	39.5	41.0	42.0	44.0	-							
ZSTNB2018-40-04			40				2.27	6.61		2.6	41.5	43.1	44.2	46.3	-							
ZSTNB2020-8-04			1				2	8		0.4	1.7	1.92	2.01	50	6	7.42	7.0	8.7	9.0	9.2	9.5	10.2
ZSTNB2020-12-04	12	2.06		55	7.42	5.7		13.0	13.6				14.0	14.4		15.4						
ZSTNB2020-16-04	16	2.12		60	7.42	4.8		17.0	17.7				18.3	18.7		20.5						
ZSTNB2020-20-04	20	2.18		65	7.42	4.1		21.3	22.3				23.0	23.6		25.6						
ZSTNB2020-20-09	20	2.50		65	4.24	4.2		x	21.4	22.4			23.2	24.6								
ZSTNB2020-25-09	25	2.65		65	4.24	3.6		x	26.5	27.7			28.5	30.8								
ZSTNB2020-30-04	30	2.32		70	7.42	3.1		31.4	32.7	33.6			34.8	38.5								
ZSTNB2020-30-09	30	2.81		70	4.24	3.2		x	31.6	32.9			33.7	36.9								
ZSTNB2020-35-09	35	2.97		75	4.24	2.8		x	36.6	38.0			39.0	-								
ZSTNB2020-40-04	40	2.46		80	7.42	2.5		41.5	43.1	44.2			46.3	-								
ZSTNB2020-40-09	40	3.12		80	4.24	2.6		x	41.7	43.2			44.5	-								
ZSTNB2020-50-09	50	3.44		90	4.24	2.1		x	51.8	53.5			55.5	-								
ZSTNB2020-60-09	60	3.75		100	4.24	1.8		x	61.9	63.8			-	-								
ZSTNB2020-70-09	70	4.07		110	4.24	1.6		x	72.0	74.1			-	-								
ZSTNB2030-8-04	1.5	3		8	0.4	2.5		2.86	2.94	50			6	8.50		6.3	8.8	9.1	9.3	9.5	10.3	
ZSTNB2030-16-04				16					3.05	55				12.52		4.1	17.2	17.8	18.3	18.7	20.6	

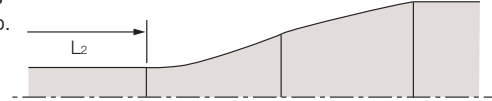
※ These tools are manufactured based on order received.

X No application
- No interference



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EDP. No.	Dimension(mm)										Effective Neck Length					STOCK	
	R	D	L ₂	θ	L ₁	d ₁	d ₂	L ₃	d ₃	App. L	θ_2	0.5°	1°	1.5°	2°		3°
ZSTNB2030-20-04	1.5	3	20	0.4	2.5	2.86	3.10	60	6	12.52	3.4	21.2	22.0	22.6	23.3	25.7	
ZSTNB2030-30-04			30				3.24			12.52	2.5	31.6	32.8	33.7	34.9	-	
ZSTNB2030-30-09			30				3.72	6.95		2.6	x	31.8	33.0	33.8	-		
ZSTNB2030-40-04			40	0.4			80	12.52		2.0	41.7	43.2	44.3	-	-		
ZSTNB2030-40-09			40	0.9				4.04		6.95	2.0	x	41.9	43.3	-	-	
ZSTNB2030-50-09			50				4.35	6.95		1.7	x	52.0	53.6	-	-		
ZSTNB2030-60-09			60				4.67	6.95		1.4	x	62.1	-	-	-		
ZSTNB2030-70-09			70	4.98			110	6.95		1.2	x	72.1	-	-	-		
ZSTNB2040-20-10			2	4			20	1		8	3.86	4.28	70	8	12.01	5.0	20.5
ZSTNB2040-30-10	30	4.63			80	12.01	3.51		22.0			31.6	32.5		33.2	34.16	
ZSTNB2040-40-10	40	4.98			90	12.01	2.7		22.0			42.0	43.4		44.3	-	
ZSTNB2040-50-10	50	5.33			100	12.01	2.2		22.0			52.0	53.6		54.7	-	
ZSTNB2040-60-10	60	5.68			110	12.01	1.9		22.0			62.0	63.8		-	-	
ZSTNB2050-30-10	2.5	5	30	1	10	4.86	5.56	80	8	14.01	2.8	25.5	31.7	32.6	33.2	-	
ZSTNB2050-40-10			40				5.91	90		14.01	2.1	25.5	41.7	42.8	43.5	-	
ZSTNB2050-60-10			60				6.61	110		14.01	1.5	25.5	62.1	-	-	-	
ZSTNB2060-30-10	3	6	30	1	12	5.86	6.49	80	8	16.01	1.9	29.0	31.8	32.6	-	-	
ZSTNB2060-40-10			40				6.84	90		16.01	1.5	29.0	41.8	-	-	-	
ZSTNB2060-50-10			50				7.19	100		16.01	1.2	29.0	51.8	-	-	-	
ZSTNB2060-60-10			60				7.54	110	16.01	1.9	29.0	62.2	63.9	-	-		
ZSTNB2060-70-10			70				7.89	120	16.01	1.7	29.0	72.2	74.1	-	-		
ZSTNB2060-80-10	80	8.23	130	16.01	1.5	29.0	82.2	-	-	-							
ZSTNB2080-50-10	4	8	50	1	14	7.86	9.12	110	10	18.01	1.2	32.0	51.9	-	-	-	
ZSTNB2080-60-10			60				9.47	120		18.01	1.0	32.0	-	-	-	-	
ZSTNB2080-70-10			70				9.82	130	18.01	0.9	32.0	-	-	-	-		
ZSTNB2080-80-10			80				10.16	140	18.01	1.5	32.0	82.3	-	-	-		
ZSTNB2100-60-10	5	10	60	1	18	9.86	11.33	130	12	22.01	1.1	39.0	62.1	-	-	-	
ZSTNB2100-75-10			75				11.85	140		22.01	0.9	39.0	-	-	-	-	

X No application
- No interference

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■ Tolerance

Diameter	Tolerance	Shank Dia.
up to 6	±0.005	h6
over 6	±0.01	

※Items can be changed for quality improvement without notice.