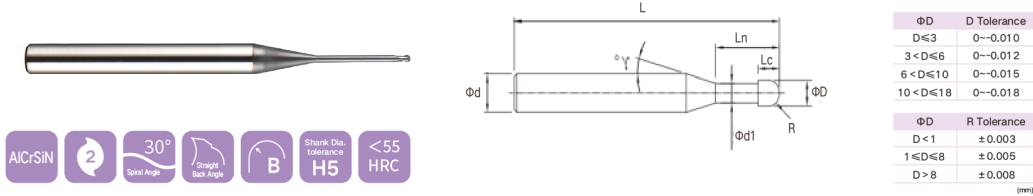


EXWBD-2L

2 Flute Ball Nose End Mill (Long Neck)

1/5



Order Code	Dia.	Corner	Length of cut	Neck length	Neck Dia.	Overall Length	Shank Dia.	Stock
	ΦD	R	Lc	Ln	Φd1	L	Φd	
EXWBD-2001L0.2 04050	0.1	0.05	0.07	0.2	0.085	50	4	●
EXWBD-2001L0.3 04050	0.1	0.05	0.07	0.3	0.085	50	4	●
EXWBD-2001L0.5 04050	0.1	0.05	0.07	0.5	0.085	50	4	●
EXWBD-2001L0.75 04050	0.1	0.05	0.07	0.75	0.085	50	4	●
EXWBD-2001L1 04050	0.1	0.05	0.07	1	0.085	50	4	●
EXWBD-20015L0.3 04050	0.15	0.075	0.1	0.3	0.13	50	4	●
EXWBD-20015L0.5 04050	0.15	0.075	0.1	0.5	0.13	50	4	●
EXWBD-20015L0.75 04050	0.15	0.075	0.1	0.75	0.13	50	4	●
EXWBD-20015L1 04050	0.15	0.075	0.1	1	0.13	50	4	●
EXWBD-20015L1.5 04050	0.15	0.075	0.1	1.5	0.13	50	4	●
EXWBD-2002L0.3 04050	0.2	0.1	0.15	0.3	0.18	50	4	●
EXWBD-2002L0.5 04050	0.2	0.1	0.15	0.5	0.18	50	4	●
EXWBD-2002L0.75 04050	0.2	0.1	0.15	0.75	0.18	50	4	●
EXWBD-2002L1 04050	0.2	0.1	0.15	1	0.18	50	4	●
EXWBD-2002L1.25 04050	0.2	0.1	0.15	1.25	0.18	50	4	●
EXWBD-2002L1.5 04050	0.2	0.1	0.15	1.5	0.18	50	4	●
EXWBD-2002L1.75 04050	0.2	0.1	0.15	1.75	0.18	50	4	●
EXWBD-2002L2 04050	0.2	0.1	0.15	2	0.18	50	4	●
EXWBD-2003L0.5 04050	0.3	0.15	0.2	0.5	0.28	50	4	●
EXWBD-2003L0.6 04050	0.3	0.15	0.2	0.6	0.28	50	4	●
EXWBD-2003L0.75 04050	0.3	0.15	0.2	0.75	0.28	50	4	●
EXWBD-2003L1 04050	0.3	0.15	0.2	1	0.28	50	4	●
EXWBD-2003L1.25 04050	0.3	0.15	0.2	1.25	0.28	50	4	●
EXWBD-2003L1.5 04050	0.3	0.15	0.2	1.5	0.28	50	4	●
EXWBD-2003L1.75 04050	0.3	0.15	0.2	1.75	0.28	50	4	●
EXWBD-2003L2 04050	0.3	0.15	0.2	2	0.28	50	4	●
EXWBD-2003L2.25 04050	0.3	0.15	0.2	2.25	0.28	50	4	●
EXWBD-2003L2.5 04050	0.3	0.15	0.2	2.5	0.28	50	4	●
EXWBD-2003L3 04050	0.3	0.15	0.2	3	0.28	50	4	●
EXWBD-2004L0.5 04050	0.4	0.2	0.3	0.5	0.37	50	4	●
EXWBD-2004L0.8 04050	0.4	0.2	0.3	0.8	0.37	50	4	●
EXWBD-2004L1 04050	0.4	0.2	0.3	1	0.37	50	4	●
EXWBD-2004L1.5 04050	0.4	0.2	0.3	1.5	0.37	50	4	●
EXWBD-2004L2 04050	0.4	0.2	0.3	2	0.37	50	4	●

EXWBD-2L

■ 2 Flute Ball Nose End Mill (Long Neck)

2/5

Order Code	Dia.	Corner	Length of cut	Neck length	Neck Dia.	Overall Length	Shank Dia.	Stock
	ΦD	R	Lc	Ln	Φd1	L	Φd	
EXWBD-2004L2.5 04050	0.4	0.2	0.3	2.5	0.37	50	4	●
EXWBD-2004L3 04050	0.4	0.2	0.3	3	0.37	50	4	●
EXWBD-2004L3.5 04050	0.4	0.2	0.3	3.5	0.37	50	4	●
EXWBD-2004L4 04050	0.4	0.2	0.3	4	0.37	50	4	●
EXWBD-2004L4.5 04050	0.4	0.2	0.3	4.5	0.37	50	4	●
EXWBD-2005L1 04050	0.5	0.25	0.35	1	0.46	50	4	●
EXWBD-2005L1.5 04050	0.5	0.25	0.35	1.5	0.46	50	4	●
EXWBD-2005L2 04050	0.5	0.25	0.35	2	0.46	50	4	●
EXWBD-2005L2.5 04050	0.5	0.25	0.35	2.5	0.46	50	4	●
EXWBD-2005L3 04050	0.5	0.25	0.35	3	0.46	50	4	●
EXWBD-2005L3.5 04050	0.5	0.25	0.35	3.5	0.46	50	4	●
EXWBD-2005L4 04050	0.5	0.25	0.35	4	0.46	50	4	●
EXWBD-2005L4.5 04050	0.5	0.25	0.35	4.5	0.46	50	4	●
EXWBD-2005L5 04050	0.5	0.25	0.35	5	0.46	50	4	●
EXWBD-2005L5.5 04050	0.5	0.25	0.35	5.5	0.46	50	4	●
EXWBD-2005L6 04050	0.5	0.25	0.35	6	0.46	50	4	●
EXWBD-2006L1 04050	0.6	0.3	0.45	1	0.56	50	4	●
EXWBD-2006L1.5 04050	0.6	0.3	0.45	1.5	0.56	50	4	●
EXWBD-2006L2 04050	0.6	0.3	0.45	2	0.56	50	4	●
EXWBD-2006L3 04050	0.6	0.3	0.45	3	0.56	50	4	●
EXWBD-2006L4 04050	0.6	0.3	0.45	4	0.56	50	4	●
EXWBD-2006L5 04050	0.6	0.3	0.45	5	0.56	50	4	●
EXWBD-2006L6 04050	0.6	0.3	0.45	6	0.56	50	4	●
EXWBD-2006L7 04050	0.6	0.3	0.45	7	0.56	50	4	●
EXWBD-2006L8 04050	0.6	0.3	0.45	8	0.56	50	4	●
EXWBD-2007L2 04050	0.7	0.35	0.5	2	0.66	50	4	●
EXWBD-2007L3 04050	0.7	0.35	0.5	3	0.66	50	4	●
EXWBD-2007L4 04050	0.7	0.35	0.5	4	0.66	50	4	●
EXWBD-2007L6 04050	0.7	0.35	0.5	6	0.66	50	4	●
EXWBD-2007L8 04050	0.7	0.35	0.5	8	0.66	50	4	●
EXWBD-2008L2 04050	0.8	0.4	0.6	2	0.76	50	4	●
EXWBD-2008L2.5 04050	0.8	0.4	0.6	2.5	0.76	50	4	●
EXWBD-2008L3 04050	0.8	0.4	0.6	3	0.76	50	4	●
EXWBD-2008L4 04050	0.8	0.4	0.6	4	0.76	50	4	●
EXWBD-2008L5 04050	0.8	0.4	0.6	5	0.76	50	4	●
EXWBD-2008L6 04050	0.8	0.4	0.6	6	0.76	50	4	●
EXWBD-2008L7 04050	0.8	0.4	0.6	7	0.76	50	4	●
EXWBD-2008L8 04050	0.8	0.4	0.6	8	0.76	50	4	●
EXWBD-2008L10 04050	0.8	0.4	0.6	10	0.76	50	4	●
EXWBD-2008L12 04050	0.8	0.4	0.6	12	0.76	50	4	●
EXWBD-2008L16 04050	0.8	0.4	0.6	16	0.76	50	4	●
EXWBD-2009L2 04050	0.9	0.45	0.65	2	0.86	50	4	●

EXWBD-2L

■ 2 Flute Ball Nose End Mill (Long Neck)

3/5

Order Code	Dia.	Corner	Length of cut	Neck length	Neck Dia.	Overall Length	Shank Dia.	Stock
	ΦD	R	Lc	Ln	Φd1	L	Φd	
EXWBD-2009L4 04050	0.9	0.45	0.65	4	0.86	50	4	●
EXWBD-2009L6 04050	0.9	0.45	0.65	6	0.86	50	4	●
EXWBD-2009L8 04050	0.9	0.45	0.65	8	0.86	50	4	●
EXWBD-2010L2.5 04050	1	0.5	0.75	2.5	0.95	50	4	●
EXWBD-2010L3 04050	1	0.5	0.75	3	0.95	50	4	●
EXWBD-2010L4 04050	1	0.5	0.75	4	0.95	50	4	●
EXWBD-2010L4 06060	1	0.5	0.75	4	0.95	60	6	●
EXWBD-2010L5 04050	1	0.5	0.75	5	0.95	50	4	●
EXWBD-2010L6 04050	1	0.5	0.75	6	0.95	50	4	●
EXWBD-2010L6 06060	1	0.5	0.75	6	0.95	60	6	●
EXWBD-2010L7 04050	1	0.5	0.75	7	0.95	50	4	●
EXWBD-2010L8 04050	1	0.5	0.75	8	0.95	50	4	●
EXWBD-2010L8 06060	1	0.5	0.75	8	0.95	60	6	●
EXWBD-2010L9 04050	1	0.5	0.75	9	0.95	50	4	●
EXWBD-2010L10 04050	1	0.5	0.75	10	0.95	50	4	●
EXWBD-2010L10 06060	1	0.5	0.75	10	0.95	60	6	●
EXWBD-2010L12 04050	1	0.5	0.75	12	0.95	50	4	●
EXWBD-2010L13 04050	1	0.5	0.75	13	0.95	50	4	●
EXWBD-2010L14 04050	1	0.5	0.75	14	0.95	50	4	●
EXWBD-2010L16 04050	1	0.5	0.75	16	0.95	50	4	●
EXWBD-2010L18 04060	1	0.5	0.75	18	0.95	60	4	●
EXWBD-2010L20 04060	1	0.5	0.75	20	0.95	60	4	●
EXWBD-2010L22 04060	1	0.5	0.75	22	0.95	60	4	●
EXWBD-2012L4 04050	1.2	0.6	1	4	1.14	50	4	●
EXWBD-2012L6 04050	1.2	0.6	1	6	1.14	50	4	●
EXWBD-2012L8 04050	1.2	0.6	1	8	1.14	50	4	●
EXWBD-2012L10 04050	1.2	0.6	1	10	1.14	50	4	●
EXWBD-2012L12 04050	1.2	0.6	1	12	1.14	50	4	●
EXWBD-2012L14 04050	1.2	0.6	1	14	1.14	50	4	●
EXWBD-2014L8 04050	1.4	0.7	1.1	8	1.34	50	4	●
EXWBD-2014L12 04050	1.4	0.7	1.1	12	1.34	50	4	●
EXWBD-2014L16 04050	1.4	0.7	1.1	16	1.34	50	4	●
EXWBD-2015L4 04050	1.5	0.75	1.2	4	1.42	50	4	●
EXWBD-2015L6 04050	1.5	0.75	1.2	6	1.42	50	4	●
EXWBD-2015L6 06060	1.5	0.75	1.2	6	1.42	60	6	●
EXWBD-2015L8 04050	1.5	0.75	1.2	8	1.42	50	4	●
EXWBD-2015L8 06060	1.5	0.75	1.2	8	1.42	60	6	●
EXWBD-2015L10 04050	1.5	0.75	1.2	10	1.42	50	4	●
EXWBD-2015L10 06060	1.5	0.75	1.2	10	1.42	60	6	●
EXWBD-2015L12 04050	1.5	0.75	1.2	12	1.42	50	4	●
EXWBD-2015L12 06060	1.5	0.75	1.2	12	1.42	60	6	●
EXWBD-2015L14 04050	1.5	0.75	1.2	14	1.42	50	4	●

EXWBD-2L

■ 2 Flute Ball Nose End Mill (Long Neck)

4/5

Order Code	Dia.	Corner	Length of cut	Neck length	Neck Dia.	Overall Length	Shank Dia.	Stock
	ΦD	R	Lc	Ln	Φd1	L	Φd	
EXWBD-2015L16 04050	1.5	0.75	1.2	16	1.42	50	4	●
EXWBD-2015L18 04060	1.5	0.75	1.2	18	1.42	60	4	●
EXWBD-2015L20 04060	1.5	0.75	1.2	20	1.42	60	4	●
EXWBD-2016L8 04050	1.6	0.8	1.3	8	1.52	50	4	●
EXWBD-2016L12 04050	1.6	0.8	1.3	12	1.52	50	4	●
EXWBD-2016L16 04050	1.6	0.8	1.3	16	1.52	50	4	●
EXWBD-2020L6 04050	2	1.0	1.6	6	1.9	50	4	●
EXWBD-2020L8 04050	2	1.0	1.6	8	1.9	50	4	●
EXWBD-2020L8 06060	2	1.0	1.6	8	1.9	60	6	●
EXWBD-2020L10 04050	2	1.0	1.6	10	1.9	50	4	●
EXWBD-2020L10 06060	2	1.0	1.6	10	1.9	60	6	●
EXWBD-2020L12 04050	2	1.0	1.6	12	1.9	50	4	●
EXWBD-2020L12 06060	2	1.0	1.6	12	1.9	60	6	●
EXWBD-2020L14 04050	2	1.0	1.6	14	1.9	50	4	●
EXWBD-2020L16 04050	2	1.0	1.6	16	1.9	50	4	●
EXWBD-2020L16 06060	2	1.0	1.6	16	1.9	60	6	●
EXWBD-2020L18 04060	2	1.0	1.6	18	1.9	60	4	●
EXWBD-2020L20 04060	2	1.0	1.6	20	1.9	60	4	●
EXWBD-2020L22 04060	2	1.0	1.6	22	1.9	60	4	●
EXWBD-2020L25 04060	2	1.0	1.6	25	1.9	60	4	●
EXWBD-2020L30 04075	2	1.0	1.6	30	1.9	75	4	●
EXWBD-2020L35 04075	2	1.0	1.6	35	1.9	75	4	●
EXWBD-2020L40 04075	2	1.0	1.6	40	1.9	75	4	●
EXWBD-2025L6 04050	2.5	1.25	2	6	2.4	50	4	●
EXWBD-2025L8 04050	2.5	1.25	2	8	2.4	50	4	●
EXWBD-2025L10 04050	2.5	1.25	2	10	2.4	50	4	●
EXWBD-2025L12 04050	2.5	1.25	2	12	2.4	50	4	●
EXWBD-2025L16 04050	2.5	1.25	2	16	2.4	50	4	●
EXWBD-2025L20 04060	2.5	1.25	2	20	2.4	60	4	●
EXWBD-2025L25 04060	2.5	1.25	2	25	2.4	60	4	●
EXWBD-2025L30 04075	2.5	1.25	2	30	2.4	75	4	●
EXWBD-2025L35 04075	2.5	1.25	2	35	2.4	75	4	●
EXWBD-2030L8 04050	3	1.5	2.4	8	2.9	50	4	●
EXWBD-2030L10 04050	3	1.5	2.4	10	2.9	50	4	●
EXWBD-2030L10 06060	3	1.5	2.4	10	2.9	60	6	●
EXWBD-2030L12 04050	3	1.5	2.4	12	2.9	50	4	●
EXWBD-2030L12 06060	3	1.5	2.4	12	2.9	60	6	●
EXWBD-2030L14 04050	3	1.5	2.4	14	2.9	50	4	●
EXWBD-2030L14 06060	3	1.5	2.4	14	2.9	60	6	●
EXWBD-2030L16 04050	3	1.5	2.4	16	2.9	50	4	●
EXWBD-2030L16 06060	3	1.5	2.4	16	2.9	60	6	●
EXWBD-2030L20 06060	3	1.5	2.4	20	2.9	60	6	●

EXWBD-2L

2 Flute Ball Nose End Mill (Long Neck)

5/5

Order Code	Dia.	Corner	Length of cut	Neck length	Neck Dia.	Overall Length	Shank Dia.	Stock
	ΦD	R	Lc	Ln	Φd1	L	Φd	
EXWBD-2030L25 06075	3	1.5	2.4	25	2.9	75	6	●
EXWBD-2030L30 06075	3	1.5	2.4	30	2.9	75	6	●
EXWBD-2030L35 06075	3	1.5	2.4	35	2.9	75	6	●
EXWBD-2030L40 06100	3	1.5	2.4	40	2.9	100	6	●
EXWBD-2035L16 06060	3.5	1.75	2.8	16	3.4	60	6	●
EXWBD-2035L20 06060	3.5	1.75	2.8	20	3.4	60	6	●
EXWBD-2035L25 06075	3.5	1.75	2.8	25	3.4	75	6	●
EXWBD-2035L30 06075	3.5	1.75	2.8	30	3.4	75	6	●
EXWBD-2035L35 06075	3.5	1.75	2.8	35	3.4	75	6	●
EXWBD-2040L12 06060	4	2.0	3.2	12	3.9	60	6	●
EXWBD-2040L14 06060	4	2.0	3.2	14	3.9	60	6	●
EXWBD-2040L16 06060	4	2.0	3.2	16	3.9	60	6	●
EXWBD-2040L20 06060	4	2.0	3.2	20	3.9	60	6	●
EXWBD-2040L20 06075	4	2.0	3.2	20	3.9	75	6	●
EXWBD-2040L25 06075	4	2.0	3.2	25	3.9	75	6	●
EXWBD-2040L30 06075	4	2.0	3.2	30	3.9	75	6	●
EXWBD-2040L35 06075	4	2.0	3.2	35	3.9	75	6	●
EXWBD-2040L40 06100	4	2.0	3.2	40	3.9	100	6	●
EXWBD-2040L45 06100	4	2.0	3.2	45	3.9	100	6	●
EXWBD-2040L50 06100	4	2.0	3.2	50	3.9	100	6	●
EXWBD-2050L16 06060	5	2.5	4	16	4.85	60	6	●
EXWBD-2050L20 06060	5	2.5	4	20	4.85	60	6	●
EXWBD-2050L25 06075	5	2.5	4	25	4.85	75	6	●
EXWBD-2050L30 06075	5	2.5	4	30	4.85	75	6	●
EXWBD-2050L35 06075	5	2.5	4	35	4.85	75	6	●
EXWBD-2050L40 06100	5	2.5	4	40	4.85	100	6	●
EXWBD-2050L45 06100	5	2.5	4	45	4.85	100	6	●
EXWBD-2050L50 06100	5	2.5	4	50	4.85	100	6	●

TABLE OF RECOMMENDED MILLING MATERIALS

CARBON STEELS ALLOY STEELS TOOL STEELS PREHARDNEED STEELS	PREHARDNEED STEELS HARDENED STEELS				STAINLESS STEELS	CAST IRON DUCTILE CAST IRON
~40HRC	~50HRC	~55HRC	~60HRC	~65HRC	~35HRC	~350HB
○	○	○			○	○
COPPER ALLOYS	ALUMINUM ALLOY	GRAPHITE	TITANIUM ALLOY	HEAT RESISTANT ALLOYS		PLASTIC
○	○		○	○		

○ Very suitable ○ Suitable