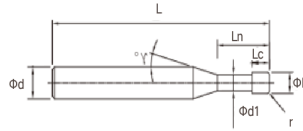


EXHRD-4L

■ 4 Flute Coner Radius End Mill (Long Neck)

1/6



ΦD	D Tolerance
D ≤ 3	0-0.010
3 < D ≤ 6	0-0.012

(mm)

Order Code	Dia.	Corner	Length of cut	Under Neck Length	Neck Dia.	Overall Length	Shank Dia.	Stock
	ΦD	r	Lc	Ln	Φd1	L	Φd	
EXHRD-4008R0.05L2 04050	0.8	0.05	0.6	2	0.76	50	4	●
EXHRD-4008R0.05L4 04050	0.8	0.05	0.6	4	0.76	50	4	●
EXHRD-4008R0.05L6 04050	0.8	0.05	0.6	6	0.76	50	4	●
EXHRD-4008R0.05L8 04050	0.8	0.05	0.6	8	0.76	50	4	●
EXHRD-4008R0.05L10 04050	0.8	0.05	0.6	10	0.76	50	4	●
EXHRD-4008R0.05L12 04050	0.8	0.05	0.6	12	0.76	50	4	●
EXHRD-4008R0.1L2 04050	0.8	0.1	0.6	2	0.76	50	4	●
EXHRD-4008R0.1L4 04050	0.8	0.1	0.6	4	0.76	50	4	●
EXHRD-4008R0.1L6 04050	0.8	0.1	0.6	6	0.76	50	4	●
EXHRD-4008R0.1L8 04050	0.8	0.1	0.6	8	0.76	50	4	●
EXHRD-4008R0.1L10 04050	0.8	0.1	0.6	10	0.76	50	4	●
EXHRD-4008R0.1L12 04050	0.8	0.1	0.6	12	0.76	50	4	●
EXHRD-4010R0.05L4 04050	1	0.05	0.75	4	0.95	50	4	●
EXHRD-4010R0.05L6 04050	1	0.05	0.75	6	0.95	50	4	●
EXHRD-4010R0.05L8 04050	1	0.05	0.75	8	0.95	50	4	●
EXHRD-4010R0.05L10 04050	1	0.05	0.75	10	0.95	50	4	●
EXHRD-4010R0.05L12 04050	1	0.05	0.75	12	0.95	50	4	●
EXHRD-4010R0.05L16 04050	1	0.05	0.75	16	0.95	50	4	●
EXHRD-4010R0.05L20 04060	1	0.05	0.75	20	0.95	60	4	●
EXHRD-4010R0.1L4 04050	1	0.1	0.75	4	0.95	50	4	●
EXHRD-4010R0.1L6 04050	1	0.1	0.75	6	0.95	50	4	●
EXHRD-4010R0.1L8 04050	1	0.1	0.75	8	0.95	50	4	●
EXHRD-4010R0.1L10 04050	1	0.1	0.75	10	0.95	50	4	●
EXHRD-4010R0.1L12 04050	1	0.1	0.75	12	0.95	50	4	●
EXHRD-4010R0.1L16 04050	1	0.1	0.75	16	0.95	50	4	●
EXHRD-4010R0.1L20 04060	1	0.1	0.75	20	0.95	60	4	●
EXHRD-4010R0.2L4 04050	1	0.2	0.75	4	0.95	50	4	●
EXHRD-4010R0.2L6 04050	1	0.2	0.75	6	0.95	50	4	●
EXHRD-4010R0.2L8 04050	1	0.2	0.75	8	0.95	50	4	●
EXHRD-4010R0.2L10 04050	1	0.2	0.75	10	0.95	50	4	●
EXHRD-4010R0.2L12 04050	1	0.2	0.75	12	0.95	50	4	●
EXHRD-4010R0.2L16 04050	1	0.2	0.75	16	0.95	50	4	●
EXHRD-4010R0.2L20 04060	1	0.2	0.75	20	0.95	60	4	●
EXHRD-4010R0.3L4 04050	1	0.3	0.75	4	0.95	50	4	●

EXHRD-4L

■ 4 Flute Coner Radius End Mill (Long Neck)

2/6

Order Code	Dia.	Corner	Length of cut	Under Neck Length	Neck Dia.	Overall Length	Shank Dia.	Stock
	ΦD	r	Lc	Ln	Φd1	L	Φd	
EXHRD-4010R0.3L6 04050	1	0.3	0.75	6	0.95	50	4	●
EXHRD-4010R0.3L8 04050	1	0.3	0.75	8	0.95	50	4	●
EXHRD-4010R0.3L10 04050	1	0.3	0.75	10	0.95	50	4	●
EXHRD-4010R0.3L12 04050	1	0.3	0.75	12	0.95	50	4	●
EXHRD-4010R0.3L16 04050	1	0.3	0.75	16	0.95	50	4	●
EXHRD-4010R0.3L20 04060	1	0.3	0.75	20	0.95	60	4	●
EXHRD-4012R0.05L5 04050	1.2	0.05	1.0	5	1.14	50	4	●
EXHRD-4012R0.05L10 04050	1.2	0.05	1.0	10	1.14	50	4	●
EXHRD-4012R0.1L5 04050	1.2	0.1	1.0	5	1.14	50	4	●
EXHRD-4012R0.1L10 04050	1.2	0.1	1.0	10	1.14	50	4	●
EXHRD-4012R0.2L5 04050	1.2	0.2	1.0	5	1.14	50	4	●
EXHRD-4012R0.2L10 04050	1.2	0.2	1.0	10	1.14	50	4	●
EXHRD-4012R0.3L5 04050	1.2	0.3	1.0	5	1.14	50	4	●
EXHRD-4012R0.3L10 04050	1.2	0.3	1.0	10	1.14	50	4	●
EXHRD-4015R0.05L6 04050	1.5	0.05	1.2	6	1.42	50	4	●
EXHRD-4015R0.05L8 04050	1.5	0.05	1.2	8	1.42	50	4	●
EXHRD-4015R0.05L10 04050	1.5	0.05	1.2	10	1.42	50	4	●
EXHRD-4015R0.05L12 04050	1.5	0.05	1.2	12	1.42	50	4	●
EXHRD-4015R0.05L16 04050	1.5	0.05	1.2	16	1.42	50	4	●
EXHRD-4015R0.05L20 04060	1.5	0.05	1.2	20	1.42	60	4	●
EXHRD-4015R0.1L4 04050	1.5	0.1	1.2	4	1.42	50	4	●
EXHRD-4015R0.1L6 04050	1.5	0.1	1.2	6	1.42	50	4	●
EXHRD-4015R0.1L8 04050	1.5	0.1	1.2	8	1.42	50	4	●
EXHRD-4015R0.1L10 04050	1.5	0.1	1.2	10	1.42	50	4	●
EXHRD-4015R0.1L12 04050	1.5	0.1	1.2	12	1.42	50	4	●
EXHRD-4015R0.1L16 04050	1.5	0.1	1.2	16	1.42	50	4	●
EXHRD-4015R0.1L20 04060	1.5	0.1	1.2	20	1.42	60	4	●
EXHRD-4015R0.2L4 04050	1.5	0.2	1.2	4	1.42	50	4	●
EXHRD-4015R0.2L6 04050	1.5	0.2	1.2	6	1.42	50	4	●
EXHRD-4015R0.2L8 04050	1.5	0.2	1.2	8	1.42	50	4	●
EXHRD-4015R0.2L10 04050	1.5	0.2	1.2	10	1.42	50	4	●
EXHRD-4015R0.2L12 04050	1.5	0.2	1.2	12	1.42	50	4	●
EXHRD-4015R0.2L16 04050	1.5	0.2	1.2	16	1.42	50	4	●
EXHRD-4015R0.2L20 04060	1.5	0.2	1.2	20	1.42	60	4	●
EXHRD-4015R0.3L4 04050	1.5	0.3	1.2	4	1.42	50	4	●
EXHRD-4015R0.3L6 04050	1.5	0.3	1.2	6	1.42	50	4	●
EXHRD-4015R0.3L8 04050	1.5	0.3	1.2	8	1.42	50	4	●
EXHRD-4015R0.3L10 04050	1.5	0.3	1.2	10	1.42	50	4	●
EXHRD-4015R0.3L12 04050	1.5	0.3	1.2	12	1.42	50	4	●
EXHRD-4015R0.3L16 04050	1.5	0.3	1.2	16	1.42	50	4	●
EXHRD-4015R0.3L20 04060	1.5	0.3	1.6	20	1.42	60	4	●
EXHRD-4020R0.05L8 04050	2	0.05	1.6	8	1.9	50	4	●

EXHRD-4L

■ 4 Flute Coner Radius End Mill (Long Neck)

3/6

Order Code	Dia.	Corner	Length of cut	Under Neck Length	Neck Dia.	Overall Length	Shank Dia.	Stock
	ΦD	r	Lc	Ln	Φd1	L	Φd	
EXHRD-4020R0.05L10 04050	2	0.05	1.6	10	1.9	50	4	●
EXHRD-4020R0.05L12 04050	2	0.05	1.6	12	1.9	50	4	●
EXHRD-4020R0.05L16 04050	2	0.05	1.6	16	1.9	50	4	●
EXHRD-4020R0.05L20 04060	2	0.05	1.6	20	1.9	60	4	●
EXHRD-4020R0.05L25 04060	2	0.05	1.6	25	1.9	60	4	●
EXHRD-4020R0.05L30 04075	2	0.05	1.6	30	1.9	75	4	●
EXHRD-4020R0.1L4 04050	2	0.1	1.6	4	1.9	50	4	●
EXHRD-4020R0.1L6 04050	2	0.1	1.6	6	1.9	50	4	●
EXHRD-4020R0.1L8 04050	2	0.1	1.6	8	1.9	50	4	●
EXHRD-4020R0.1L10 04050	2	0.1	1.6	10	1.9	50	4	●
EXHRD-4020R0.1L12 04050	2	0.1	1.6	12	1.9	50	4	●
EXHRD-4020R0.1L16 04050	2	0.1	1.6	16	1.9	50	4	●
EXHRD-4020R0.1L20 04060	2	0.1	1.6	20	1.9	60	4	●
EXHRD-4020R0.1L25 04060	2	0.1	1.6	25	1.9	60	4	●
EXHRD-4020R0.1L30 04075	2	0.1	1.6	30	1.9	75	4	●
EXHRD-4020R0.2L4 04050	2	0.2	1.6	4	1.9	50	4	●
EXHRD-4020R0.2L6 04050	2	0.2	1.6	6	1.9	50	4	●
EXHRD-4020R0.2L8 04050	2	0.2	1.6	8	1.9	50	4	●
EXHRD-4020R0.2L10 04050	2	0.2	1.6	10	1.9	50	4	●
EXHRD-4020R0.2L12 04050	2	0.2	1.6	12	1.9	50	4	●
EXHRD-4020R0.2L16 04050	2	0.2	1.6	16	1.9	50	4	●
EXHRD-4020R0.2L20 04060	2	0.2	1.6	20	1.9	60	4	●
EXHRD-4020R0.2L25 04060	2	0.2	1.6	25	1.9	60	4	●
EXHRD-4020R0.2L30 04075	2	0.2	1.6	30	1.9	75	4	●
EXHRD-4020R0.3L6 04050	2	0.3	1.6	6	1.9	50	4	●
EXHRD-4020R0.3L8 04050	2	0.3	1.6	8	1.9	50	4	●
EXHRD-4020R0.3L10 04050	2	0.3	1.6	10	1.9	50	4	●
EXHRD-4020R0.3L12 04050	2	0.3	1.6	12	1.9	50	4	●
EXHRD-4020R0.3L16 04050	2	0.3	1.6	16	1.9	50	4	●
EXHRD-4020R0.3L20 04060	2	0.3	1.6	20	1.9	60	4	●
EXHRD-4020R0.3L25 04060	2	0.3	1.6	25	1.9	60	4	●
EXHRD-4020R0.3L30 04075	2	0.3	1.6	30	1.9	75	4	●
EXHRD-4020R0.5L6 04050	2	0.5	1.6	6	1.9	50	4	●
EXHRD-4020R0.5L8 04050	2	0.5	1.6	8	1.9	50	4	●
EXHRD-4020R0.5L10 04050	2	0.5	1.6	10	1.9	50	4	●
EXHRD-4020R0.5L12 04050	2	0.5	1.6	12	1.9	50	4	●
EXHRD-4020R0.5L16 04050	2	0.5	1.6	16	1.9	50	4	●
EXHRD-4020R0.5L20 04060	2	0.5	1.6	20	1.9	60	4	●
EXHRD-4020R0.5L25 04060	2	0.5	1.6	25	1.9	60	4	●
EXHRD-4020R0.5L30 04075	2	0.5	1.6	30	1.9	75	4	●
EXHRD-4025R0.1L10 04050	2.5	0.1	2	10	2.4	50	4	●
EXHRD-4025R0.1L20 04060	2.5	0.1	2	20	2.4	60	4	●

EXHRD-4L

■ 4 Flute Coner Radius End Mill (Long Neck)

4/6

Order Code	Dia.	Corner	Length of cut	Under Neck Length	Neck Dia.	Overall Length	Shank Dia.	Stock
	ΦD	r	Lc	Ln	Φd1	L	Φd	
EXHRD-4025R0.1L30 04075	2.5	0.1	2	30	2.4	75	4	●
EXHRD-4025R0.2L10 04050	2.5	0.2	2	10	2.4	50	4	●
EXHRD-4025R0.2L20 04060	2.5	0.2	2	20	2.4	60	4	●
EXHRD-4025R0.2L30 04075	2.5	0.2	2	30	2.4	75	4	●
EXHRD-4025R0.3L10 04050	2.5	0.3	2	10	2.4	50	4	●
EXHRD-4025R0.3L20 04060	2.5	0.3	2	20	2.4	60	4	●
EXHRD-4025R0.3L30 04075	2.5	0.3	2	30	2.4	75	4	●
EXHRD-4025R0.5L10 04050	2.5	0.5	2	10	2.4	50	4	●
EXHRD-4025R0.5L20 04060	2.5	0.5	2	20	2.4	60	4	●
EXHRD-4025R0.5L30 04075	2.5	0.5	2	30	2.4	75	4	●
EXHRD-4030R0.1L10 04050	3	0.1	2.4	10	2.9	50	4	●
EXHRD-4030R0.1L10 04060	3	0.1	2.4	10	2.9	60	6	●
EXHRD-4030R0.1L12 04050	3	0.1	2.4	12	2.9	50	4	●
EXHRD-4030R0.1L12 04060	3	0.1	2.4	12	2.9	60	6	●
EXHRD-4030R0.1L16 04050	3	0.1	2.4	16	2.9	50	4	●
EXHRD-4030R0.1L16 04060	3	0.1	2.4	16	2.9	60	6	●
EXHRD-4030R0.1L20 04060	3	0.1	2.4	20	2.9	60	6	●
EXHRD-4030R0.1L25 04075	3	0.1	2.4	25	2.9	75	6	●
EXHRD-4030R0.1L30 04075	3	0.1	2.4	30	2.9	75	6	●
EXHRD-4030R0.1L35 04075	3	0.1	2.4	35	2.9	75	6	●
EXHRD-4030R0.1L40 06100	3	0.1	2.4	40	2.9	100	6	●
EXHRD-4030R0.2L8 04050	3	0.2	2.4	8	2.9	50	4	●
EXHRD-4030R0.2L10 04050	3	0.2	2.4	10	2.9	50	4	●
EXHRD-4030R0.2L10 04060	3	0.2	2.4	10	2.9	60	6	●
EXHRD-4030R0.2L12 04050	3	0.2	2.4	12	2.9	50	4	●
EXHRD-4030R0.2L12 04060	3	0.2	2.4	12	2.9	60	6	●
EXHRD-4030R0.2L16 04050	3	0.2	2.4	16	2.9	50	4	●
EXHRD-4030R0.2L16 04060	3	0.2	2.4	16	2.9	60	6	●
EXHRD-4030R0.2L20 04060	3	0.2	2.4	20	2.9	60	6	●
EXHRD-4030R0.2L25 04075	3	0.2	2.4	25	2.9	75	6	●
EXHRD-4030R0.2L30 04075	3	0.2	2.4	30	2.9	75	6	●
EXHRD-4030R0.2L35 04075	3	0.2	2.4	35	2.9	75	6	●
EXHRD-4030R0.2L40 06100	3	0.2	2.4	40	2.9	100	6	●
EXHRD-4030R0.3L10 04050	3	0.3	2.4	10	2.9	50	4	●
EXHRD-4030R0.3L10 04060	3	0.3	2.4	10	2.9	60	6	●
EXHRD-4030R0.3L12 04050	3	0.3	2.4	12	2.9	50	4	●
EXHRD-4030R0.3L12 04060	3	0.3	2.4	12	2.9	60	6	●
EXHRD-4030R0.3L16 04050	3	0.3	2.4	16	2.9	50	4	●
EXHRD-4030R0.3L16 04060	3	0.3	2.4	16	2.9	60	6	●
EXHRD-4030R0.3L20 04060	3	0.3	2.4	20	2.9	60	6	●
EXHRD-4030R0.3L25 04075	3	0.3	2.4	25	2.9	75	6	●
EXHRD-4030R0.3L30 04075	3	0.3	2.4	30	2.9	75	6	●

EXHRD-4L

■ 4 Flute Coner Radius End Mill (Long Neck)

5/6

Order Code	Dia.	Corner	Length of cut	Under Neck Length	Neck Dia.	Overall Length	Shank Dia.	Stock
	ΦD	r	Lc	Ln	Φd1	L	Φd	
EXHRD-4030R0.3L35 04075	3	0.3	2.4	35	2.9	75	6	●
EXHRD-4030R0.3L40 06100	3	0.3	2.4	40	2.9	100	6	●
EXHRD-4030R0.5L8 04050	3	0.5	2.4	8	2.9	50	4	●
EXHRD-4030R0.5L10 04050	3	0.5	2.4	10	2.9	50	4	●
EXHRD-4030R0.5L10 04060	3	0.5	2.4	10	2.9	60	6	●
EXHRD-4030R0.5L12 04050	3	0.5	2.4	12	2.9	50	4	●
EXHRD-4030R0.5L12 04060	3	0.5	2.4	12	2.9	60	6	●
EXHRD-4030R0.5L16 04050	3	0.5	2.4	16	2.9	50	4	●
EXHRD-4030R0.5L16 04060	3	0.5	2.4	16	2.9	60	6	●
EXHRD-4030R0.5L20 04060	3	0.5	2.4	20	2.9	60	6	●
EXHRD-4030R0.5L25 04075	3	0.5	2.4	25	2.9	75	6	●
EXHRD-4030R0.5L30 04075	3	0.5	2.4	30	2.9	75	6	●
EXHRD-4030R0.5L35 04075	3	0.5	2.4	35	2.9	75	6	●
EXHRD-4030R0.5L40 06100	3	0.5	2.4	40	2.9	100	6	●
EXHRD-4040R0.1L12 04060	4	0.1	3.2	12	3.9	60	6	●
EXHRD-4040R0.1L16 04060	4	0.1	3.2	16	3.9	60	6	●
EXHRD-4040R0.1L20 04060	4	0.1	3.2	20	3.9	60	6	●
EXHRD-4040R0.1L25 04075	4	0.1	3.2	25	3.9	75	6	●
EXHRD-4040R0.1L30 04075	4	0.1	3.2	30	3.9	75	6	●
EXHRD-4040R0.1L35 04075	4	0.1	3.2	35	3.9	75	6	●
EXHRD-4040R0.1L40 06100	4	0.1	3.2	40	3.9	100	6	●
EXHRD-4040R0.1L45 06100	4	0.1	3.2	45	3.9	100	6	●
EXHRD-4040R0.1L50 06100	4	0.1	3.2	50	3.9	100	6	●
EXHRD-4040R0.2L12 04060	4	0.2	3.2	12	3.9	60	6	●
EXHRD-4040R0.2L16 04060	4	0.2	3.2	16	3.9	60	6	●
EXHRD-4040R0.2L20 04060	4	0.2	3.2	20	3.9	60	6	●
EXHRD-4040R0.2L25 04075	4	0.2	3.2	25	3.9	75	6	●
EXHRD-4040R0.2L30 04075	4	0.2	3.2	30	3.9	75	6	●
EXHRD-4040R0.2L35 04075	4	0.2	3.2	35	3.9	75	6	●
EXHRD-4040R0.2L40 06100	4	0.2	3.2	40	3.9	100	6	●
EXHRD-4040R0.2L45 06100	4	0.2	3.2	45	3.9	100	6	●
EXHRD-4040R0.2L50 06100	4	0.2	3.2	50	3.9	100	6	●
EXHRD-4040R0.3L12 04060	4	0.3	3.2	12	3.9	60	6	●
EXHRD-4040R0.3L16 04060	4	0.3	3.2	16	3.9	60	6	●
EXHRD-4040R0.3L20 04060	4	0.3	3.2	20	3.9	60	6	●
EXHRD-4040R0.3L25 04075	4	0.3	3.2	25	3.9	75	6	●
EXHRD-4040R0.3L30 04075	4	0.3	3.2	30	3.9	75	6	●
EXHRD-4040R0.3L35 04075	4	0.3	3.2	35	3.9	75	6	●
EXHRD-4040R0.3L40 06100	4	0.3	3.2	40	3.9	100	6	●
EXHRD-4040R0.3L45 06100	4	0.3	3.2	45	3.9	100	6	●
EXHRD-4040R0.3L50 06100	4	0.3	3.2	50	3.9	100	6	●
EXHRD-4040R0.5L12 04060	4	0.5	3.2	12	3.9	60	6	●

EXHRD-4L

■ 4 Flute Coner Radius End Mill (Long Neck)

6/6

Order Code	Dia.	Corner	Length of cut	Under Neck Length	Neck Dia.	Overall Length	Shank Dia.	Stock
	ΦD	r	Lc	Ln	Φd1	L	Φd	
EXHRD-4040R0.5L16 04060	4	0.5	3.2	16	3.9	60	6	●
EXHRD-4040R0.5L20 04060	4	0.5	3.2	20	3.9	60	6	●
EXHRD-4040R0.5L25 04075	4	0.5	3.2	25	3.9	75	6	●
EXHRD-4040R0.5L30 04075	4	0.5	3.2	30	3.9	75	6	●
EXHRD-4040R0.5L35 04075	4	0.5	3.2	35	3.9	75	6	●
EXHRD-4040R0.5L40 06100	4	0.5	3.2	40	3.9	100	6	●
EXHRD-4040R0.5L45 06100	4	0.5	3.2	45	3.9	100	6	●
EXHRD-4040R0.5L50 06100	4	0.5	3.2	50	3.9	100	6	●
EXHRD-4040R1.0L12 04060	4	1.0	3.2	12	3.9	60	6	●
EXHRD-4040R1.0L16 04060	4	1.0	3.2	16	3.9	60	6	●
EXHRD-4040R1.0L20 04060	4	1.0	3.2	20	3.9	60	6	●
EXHRD-4040R1.0L25 04075	4	1.0	3.2	25	3.9	75	6	●
EXHRD-4040R1.0L30 04075	4	1.0	3.2	30	3.9	75	6	●
EXHRD-4040R1.0L35 04075	4	1.0	3.2	35	3.9	75	6	●
EXHRD-4040R1.0L40 06100	4	1.0	3.2	40	3.9	100	6	●
EXHRD-4040R1.0L45 06100	4	1.0	3.2	45	3.9	100	6	●
EXHRD-4040R1.0L50 06100	4	1.0	3.2	50	3.9	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