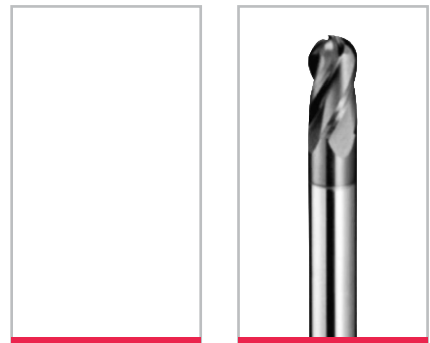


**X  
60  
Series**

**XB Star 4 ( $\leq 60$  HRC) LS**  
Ball Nose End Mills - Long Shank Series



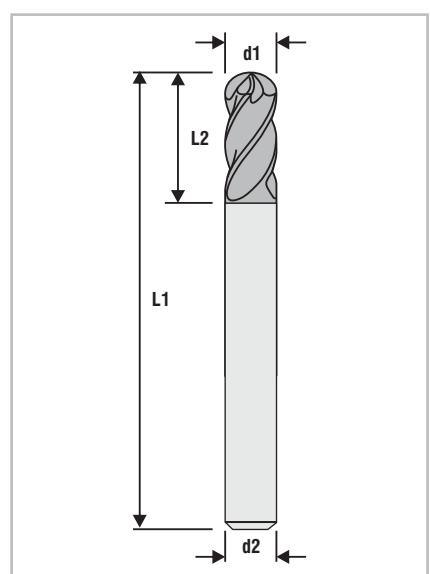
Steel	$R_m < 850$	■
	$R_m 850-1300$	■
	$R_m 1300-1500$	■
M	Stainless Steel	■
K	Cast Iron	□
N	Copper	□
S	Titanium	□
Hardened Steel	HRC 48-55	■
	HRC 56-60	□
	HRC > 60	□

**LS  
SERIES**

**AT  
COATING**

$\lambda 30^\circ$

**SMG  
0.4 $\mu$ m**



Tolerance	
Diameter	Range
$1 \leq d < 8$	0 / -0.02
$8 \leq d < 18$	0 / -0.03
$20 \leq d$	0 / -0.04

Article No.	Dimension (mm)					AT-coated
	4 Flute	$\varnothing d1$ h10	$\varnothing d2$ h6	L2	L1	
XB4-SBM 4010 LS 75	R0.50	4	2	75	■	
XB4-SBM 4015 LS 75	R0.75	4	3	75	■	
XB4-SBM 4020 LS 75	R1.00	4	4	75	■	
XB3-SBM 4030 LS 75	R1.50	3	6	75	■	
XB4-SBM 4030 LS 75	R1.50	4	6	75	■	
XB4-SBM 4040 LS 75	R2.00	4	8	75	■	
XB4-SBM 4040 LS 100	R2.00	4	8	100	■	
XB5-SBM 4050 LS 75	R2.50	5	10	75	■	
XB5-SBM 4050 LS 100	R2.50	5	10	100	■	
XB6-SBM 4020 LS 75	R1.00	6	4	75	■	
XB6-SBM 4030 LS 75	R1.50	6	6	75	■	
XB6-SBM 4040 LS 75	R2.00	6	8	75	■	
XB6-SBM 4050 LS 75	R2.50	6	10	75	■	
XB6-SBM 4060 LS 75	R3.00	6	12	75	■	
XB6-SBM 4040 LS 100	R2.00	6	8	100	■	
XB6-SBM 4050 LS 100	R2.50	6	10	100	■	
XB6-SBM 4060 LS 100	R3.00	6	12	100	■	
XB8-SBM 4080 LS 75	R4.00	8	16	75	■	
XB8-SBM 4080 LS 100	R4.00	8	16	100	■	
XB10-SBM 4100 LS 100	R5.00	10	20	100	■	
XB10-SBM 4100 LS 150	R5.00	10	20	150	■	
XB12-SBM 4120 LS 100	R6.00	12	24	100	■	
XB12-SBM 4120 LS 150	R6.00	12	24	150	■	
XB16-SBM 4160 LS 150	R8.00	16	32	150	■	
XB20-SBM 4200 LS 150	R10.0	20	40	150	■	


■ Available ex stock / subject to prior sale  
**SMG** - Super-Fine Micron Grade  
**LS** - Long Shank for deep reach moulds and dies

**BALL  
End Mills**