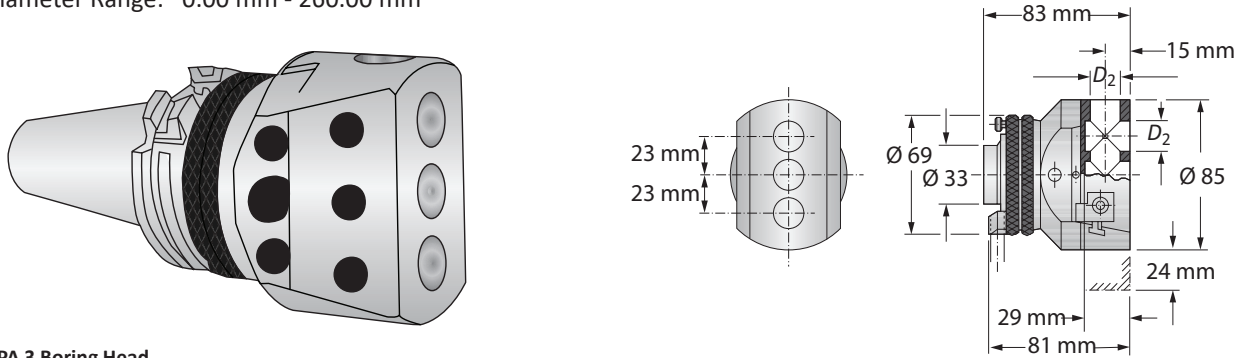


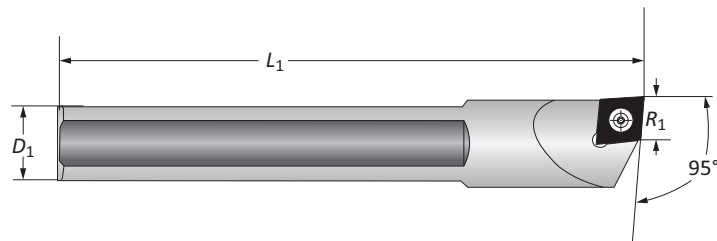
UPA 3 Boring Head and Accessories

Diameter Range: 0.00 mm - 260.00 mm



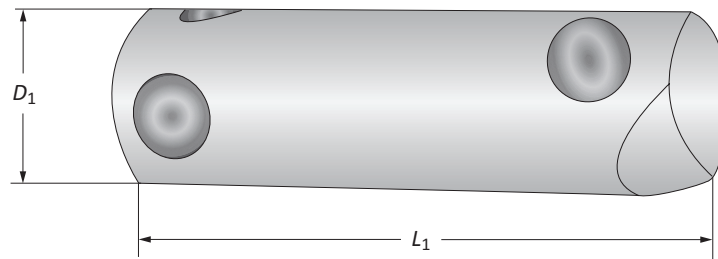
UPA 3 Boring Head

Boring Head			
Boring Range	D_2	Weight	Part No.
0.00 - 260.00	18.00	2.10 (kg)	005020



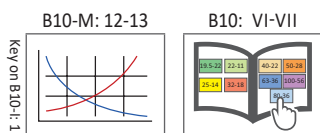
UPA 3 Boring Bars

Boring Bar				Cutting Direction	Insert Form	Part No.
D_1	L_1	R_1	Weight			
18.00	80.00	13.50	0.10 (kg)	R	103	081087
18.00	80.00	13.50	0.10 (kg)	L	103	218088



UPA 3 Boring Bars

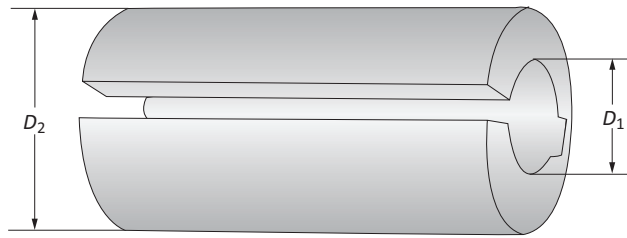
Boring Bar		Boring Depth	Designation	Part No.
D_1	L_1			
18.00	60.00	30.00	B 306	073003
18.00	90.00	60.00	B 309	073004
18.00	120.00	90.00	B 312	073005



m = Metric (mm)

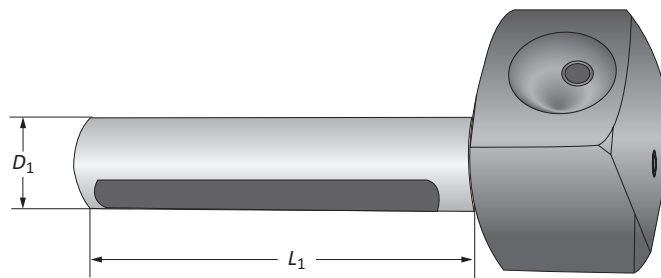
UPA 3 Accessories

Reducing Sleeves | Boring Bar Holders



UPA 3 Reducing Sleeves

Reducing Sleeve		Weight	Part No.
D_2	D_1		
18.00	8.00	0.10 (kg)	071103
18.00	10.00	0.10 (kg)	071104
18.00	12.00	0.10 (kg)	071105
18.00	14.00	0.10 (kg)	071106

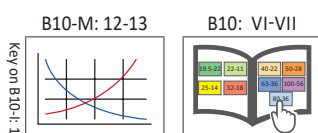
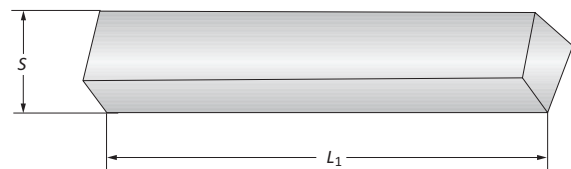


UPA 3 Boring Bar Holders

Boring Bar Holder		Working Diameter Range	Designation	Part No.
D_1	L_1			
18.00	82.00	85.00 - 190.00	BH 308	075001
18.00	120.00	160.00 - 260.00	BH 312	075002

UPA 3 Square Turning Bit

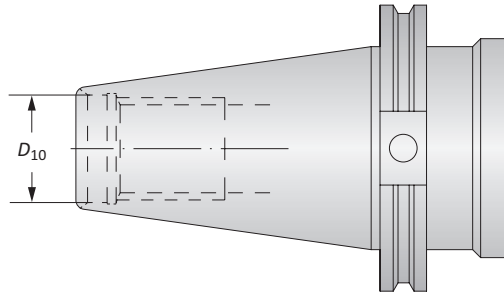
Square Turning Bit		Weight	Part No.
S	L_1		
6.00	40.00	11 (g)	089001



m = Metric (mm)

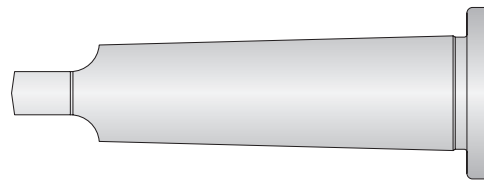
UPA 3 Master Shanks

CAT 40/50 | Morse Taper



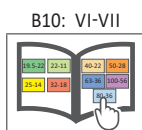
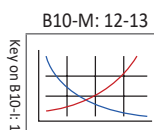
CAT 40/50 Shanks

		Shank		
	Style	D_{10}	Weight	Part No.
m	CAT 40	M16 x 2	1.06 (kg)	130001T016960
	CAT 50	M24 x 3	3.20 (kg)	130001T016962



Morse Taper Shanks

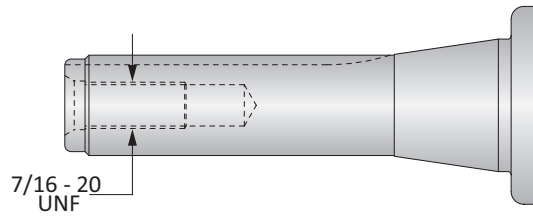
		Shank		
	Style		Weight	Part No.
m	MT 3		0.30 (kg)	130001T004509
	MT 4		0.55 (kg)	130001T003590
	MT 5		1.35 (kg)	130001T003920




m = Metric (mm)

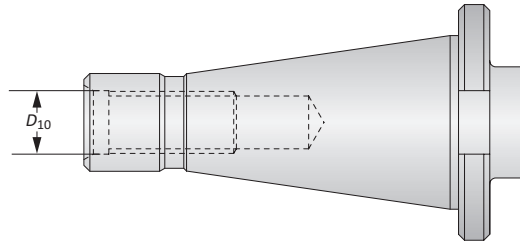
UPA 3 Master Shanks

R-8 | NMTB 40/50




R-8 Shanks


Shank		Part No.
Weight		
	0.48 (kg)	130001T007166

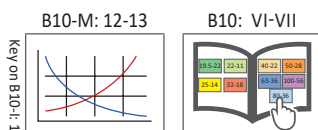


NMTB 40/50 Shanks

Shank		Weight	Part No.
Style	D_{10}		
	NMTB40	0.90 (kg)	130001T004498
	NMTB50	2.63 (kg)	130001T004480

Differential Screw

Thread	Weight	Part No.
 M16 x 2	0.03 (kg)	KW9208



 = Metric (mm)