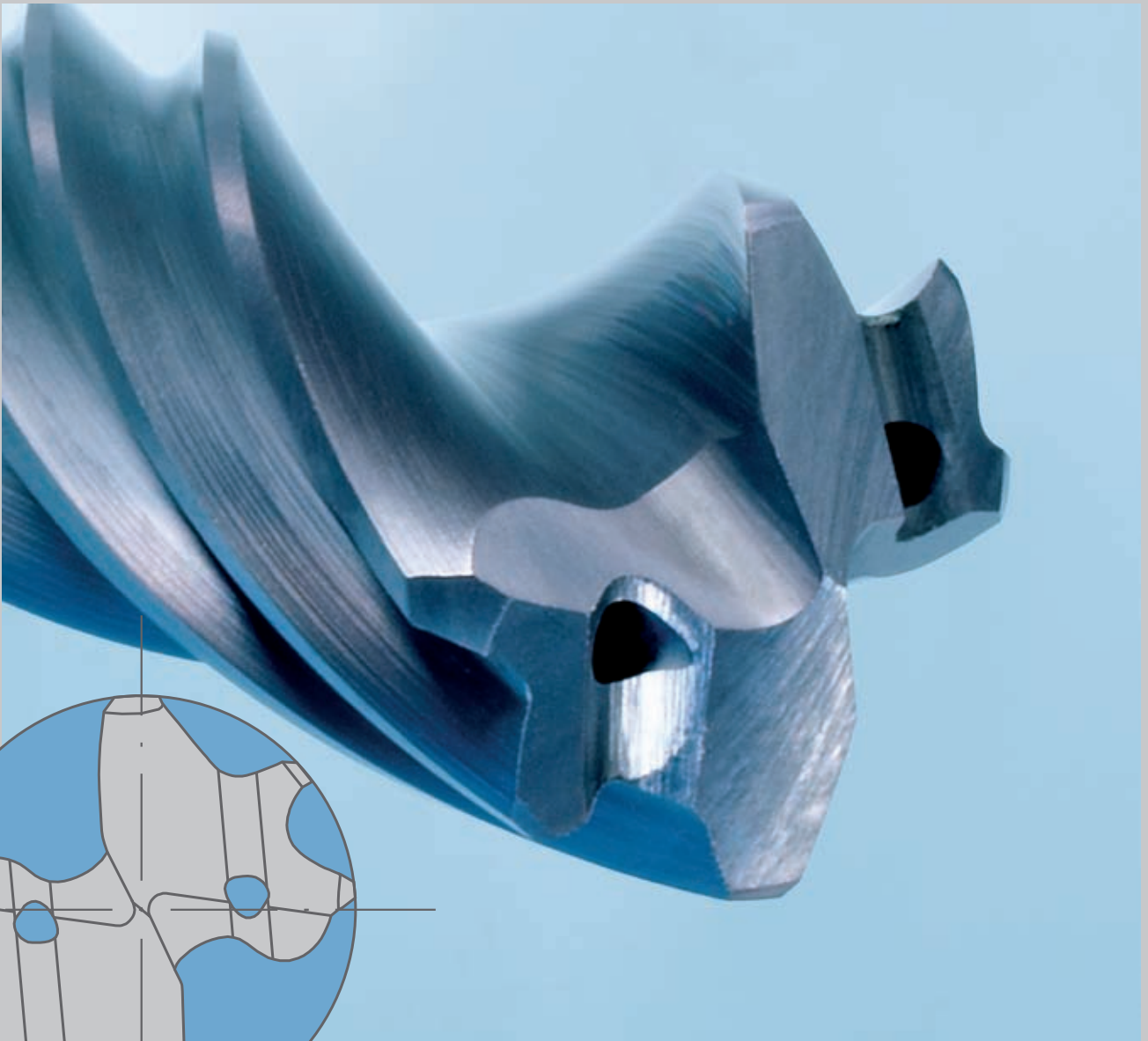


MAPAL MEGA-Drill-Reamer

Drilling and reaming in one pass



Perfect for you.

MEGA-Drill-Reamers – Drilling and reaming in one pass

MEGA-Drill-Reamers from MAPAL combine two operations into one tool: drilling and reaming.

Bores can be machined with these more quickly and more efficiently without having to lose reaming quality. Optimisation and rationalisation are always given prime position at MAPAL. And by using MEGA-Drill-Reamers on machining centres, both main and non-

productive times can be clearly reduced – on transfer lines a complete station can be dispensed with.

With MEGA-Drill-Reamers from MAPAL, which are supplied with MxF-coating as standard, two drilling flutes first machine into the solid. Four reaming flutes then carry out the finish machining and guarantee as good a surface finish, dimensional stability and roundness as with reaming.

Despite the larger number of flutes and guide chamfers, the MEGA-Drill-Reamers can be reground easily and to high precision.

These tools can be used for numerous applications, for example location bores in cylinder heads, crank cases or transmission housings.



internal coolant



cyl. shank Form HA



centre angle 140°



MxF-coating



helix angle 30°



right-hand rotation



highly suitable

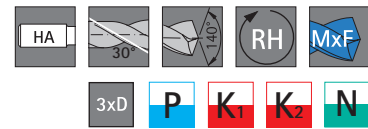
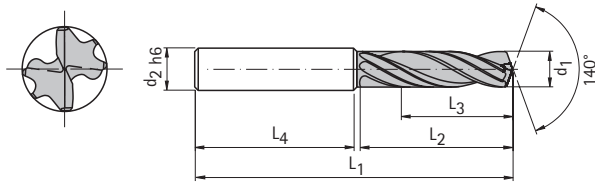


suitable in some situations



drilling depth 3xD, 5xD

MEGA-Drill-Reamer M2253



Design:
 Drill diameter: 5.97 – 12.02 mm
 Bore tolerance: ± 0.003 (standard)
 No. of margins: 2+4
 Shank form: HA (DIN 6535)
 Coating: MxF

Drill diameter $d_1 (\pm 0.003)$ mm	Recommended for bore diameter* min. – max. mm	Dimensions					Order No.		
		Shank d_2 h6 mm	Total length L_1 mm	Flute depth L_2 mm	Drilling depth L_3 mm	Shank L_4 mm			
5.97	5.965 – 5.980	6	79	34	24	36	M2253-0597AE ± 0.003	●	
5.98	5.975 – 5.990	6	79	34	24	36	M2253-0598AE ± 0.003	●	
5.99	5.985 – 6.000	6	79	34	24	36	M2253-0599AE ± 0.003	●	
6.00	5.995 – 6.010	6	79	34	24	36	M2253-0600AE ± 0.003	●	
6.01	6.005 – 6.020	6	79	34	24	36	M2253-0601AE ± 0.003	●	
6.02	6.015 – 6.030	6	79	34	24	36	M2253-0602AE ± 0.003	●	
7.97	7.965 – 7.980	8	79	34	24	36	M2253-0797AE ± 0.003	●	
7.98	7.975 – 7.990	8	79	34	24	36	M2253-0798AE ± 0.003	●	
7.99	7.985 – 8.000	8	79	34	24	36	M2253-0799AE ± 0.003	●	
8.00	7.995 – 8.010	8	79	34	24	36	M2253-0800AE ± 0.003	●	
8.01	8.005 – 8.020	8	79	34	24	36	M2253-0801AE ± 0.003	●	
8.02	8.015 – 8.030	8	79	34	24	36	M2253-0802AE ± 0.003	●	
9.97	9.965 – 9.980	10	89	47	35	40	M2253-0997AE ± 0.003	●	
9.98	9.975 – 9.990	10	89	47	35	40	M2253-0998AE ± 0.003	●	
9.99	9.985 – 10.000	10	89	47	35	40	M2253-0999AE ± 0.003	●	
10.00	9.995 – 10.010	10	89	47	35	40	M2253-1000AE ± 0.003	●	
10.01	10.005 – 10.020	10	89	47	35	40	M2253-1001AE ± 0.003	●	
10.02	10.015 – 10.030	10	89	47	35	40	M2253-1002AE ± 0.003	●	
11.97	11.964 – 11.982	12	102	55	40	45	M2253-1197AE ± 0.003	●	
11.98	11.974 – 11.992	12	102	55	40	45	M2253-1198AE ± 0.003	●	
11.99	11.984 – 12.002	12	102	55	40	45	M2253-1199AE ± 0.003	●	
12.00	11.994 – 12.012	12	102	55	40	45	M2253-1200AE ± 0.003	●	
12.01	12.004 – 12.022	12	102	55	40	45	M2253-1201AE ± 0.003	●	
12.02	12.014 – 12.032	12	102	55	40	45	M2253-1202AE ± 0.003	●	

● available ex stock Germany

*The given bore diameters can only be guaranteed under perfect machining conditions and a run-out < 10 μ m. Workpiece material and lubricant may also have an impact on the bore size. Other diameters and lengths can be offered on request at a minimum order quantity of three pieces per size.

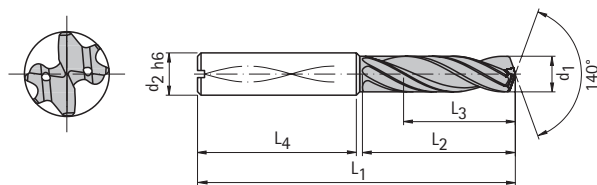
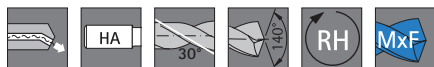
Intermediate sizes and other coatings:

Minimum order quantities for intermediate dimensions:

$\leq \varnothing 10$ mm: 5 off
 $> \varnothing 10 \leq 20$ mm: 3 off
 $> \varnothing 20$ mm: 2 off

Prices for intermediate sizes and other coatings available on request.

MEGA-Drill-Reamer M2263



Design:

Drill diameter: 5.97 – 16.02 mm
 Bore tolerance: ± 0.003 (standard)
 No. of margins: 2+4
 Shank form: HA (DIN 6535)
 Coating: MxF

Drill diameter d_1 (± 0.003) mm	Recommended for bore diameter* min. – max. mm	Dimensions					Shank	Order No.		
		Shank d_2 h6 mm	Total length L_1 mm	Flute depth L_2 mm	Drilling depth L_3 mm	Shank L_4 mm				
5.97	5.965 – 5.980	6	79	34	24	36	M2263-0597AE ± 0.003	●		
5.98	5.975 – 5.990	6	79	34	24	36	M2263-0598AE ± 0.003	●		
5.99	5.985 – 6.000	6	79	34	24	36	M2263-0599AE ± 0.003	●		
6.00	5.995 – 6.010	6	79	34	24	36	M2263-0600AE ± 0.003	●		
6.01	6.005 – 6.020	6	79	34	24	36	M2263-0601AE ± 0.003	●		
6.02	6.015 – 6.030	6	79	34	24	36	M2263-0602AE ± 0.003	●		
6.32	6.315 – 6.330	8	79	34	24	36	M2263-0632AE ± 0.003	●		
6.33	6.325 – 6.340	8	79	34	24	36	M2263-0633AE ± 0.003	●		
6.34	6.335 – 6.350	8	79	34	24	36	M2263-0634AE ± 0.003	●		
6.35	6.345 – 6.360	8	79	34	24	36	M2263-0635AE ± 0.003	●		
6.36	6.355 – 6.370	8	79	34	24	36	M2263-0636AE ± 0.003	●		
6.37	6.365 – 6.380	8	79	34	24	36	M2263-0637AE ± 0.003	●		
7.97	7.965 – 7.980	8	79	34	24	36	M2263-0797AE ± 0.003	●		
7.98	7.975 – 7.990	8	79	34	24	36	M2263-0798AE ± 0.003	●		
7.99	7.985 – 8.000	8	79	34	24	36	M2263-0799AE ± 0.003	●		
8.00	7.995 – 8.010	8	79	34	24	36	M2263-0800AE ± 0.003	●		
8.01	8.005 – 8.020	8	79	34	24	36	M2263-0801AE ± 0.003	●		
8.02	8.015 – 8.030	8	79	34	24	36	M2263-0802AE ± 0.003	●		

● available ex stock Germany

*The given bore diameters can only be guaranteed under perfect machining conditions and a run-out $< 10 \mu\text{m}$. Workpiece material and lubricant may also have an impact on the bore size. Other diameters and lengths can be offered on request at a minimum order quantity of three pieces per size.

Intermediate sizes and other coatings:

Minimum order quantities for intermediate dimensions:

$\leq \varnothing 10$ mm: 5 off
 $> \varnothing 10 \leq 20$ mm: 3 off
 $> \varnothing 20$ mm: 2 off

Prices for intermediate sizes and other coatings available on request.

Drill diameter d_1 (± 0.003) mm	Recommended for bore diameter* min. – max. mm	Dimensions					Shank L_4 mm	Order No.		
		Shank d_2 h6 mm	Total length L_1 mm	Flute depth L_2 mm	Drilling depth L_3 mm	Shank L_4 mm				
9.48	9.475 - 9.490	10	89	47	35	40	M2263-0948AE ± 0.003	●		
9.49	9.485 - 9.500	10	89	47	35	40	M2263-0949AE ± 0.003	●		
9.50	9.495 - 9.510	10	89	47	35	40	M2263-0950AE ± 0.003	●		
9.52	9.515 - 9.530	10	89	47	35	40	M2263-0952AE ± 0.003	●		
9.53	9.525 - 9.540	10	89	47	35	40	M2263-0953AE ± 0.003	●		
9.54	9.535 - 9.550	10	89	47	35	40	M2263-0954AE ± 0.003	●		
9.97	9.965 - 9.980	10	89	47	35	40	M2263-0997AE ± 0.003	●		
9.98	9.975 - 9.990	10	89	47	35	40	M2263-0998AE ± 0.003	●		
9.99	9.985 - 10.000	10	89	47	35	40	M2263-0999AE ± 0.003	●		
10.00	9.995 - 10.010	10	89	47	35	40	M2263-1000AE ± 0.003	●		
10.01	10.005 - 10.020	10	89	47	35	40	M2263-1001AE ± 0.003	●		
10.02	10.015 - 10.030	10	89	47	35	40	M2263-1002AE ± 0.003	●		
11.97	11.964 - 11.982	12	102	55	40	45	M2263-1197AE ± 0.003	●		
11.98	11.974 - 11.992	12	102	55	40	45	M2263-1198AE ± 0.003	●		
11.99	11.984 - 12.002	12	102	55	40	45	M2263-1199AE ± 0.003	●		
12.00	11.994 - 12.012	12	102	55	40	45	M2263-1200AE ± 0.003	●		
12.01	12.004 - 12.022	12	102	55	40	45	M2263-1201AE ± 0.003	●		
12.02	12.014 - 12.032	12	102	55	40	45	M2263-1202AE ± 0.003	●		
12.67	12.664 - 12.682	14	107	60	43	45	M2263-1267AE ± 0.003	●		
12.68	12.674 - 12.692	14	107	60	43	45	M2263-1268AE ± 0.003	●		
12.69	12.684 - 12.702	14	107	60	43	45	M2263-1269AE ± 0.003	●		
12.70	12.694 - 12.712	14	107	60	43	45	M2263-1270AE ± 0.003	●		
12.71	12.704 - 12.722	14	107	60	43	45	M2263-1271AE ± 0.003	●		
12.72	12.714 - 12.732	14	107	60	43	45	M2263-1272AE ± 0.003	●		

MEGA-Drill-Reamers for drill holes with tolerance H7

Drill diameter d_1 (± 0.003) mm	Recommended for bore diameter* min. – max. mm	Dimensions					Shank L_4 mm	Order No.		
		Shank d_2 h6 mm	Total length L_1 mm	Flute depth L_2 mm	Drilling depth L_3 mm	Shank L_4 mm				
6H7	6.000 - 6.012	6	79	34	24	36	M2263-0600AE H7	●		
8H7	8.000 - 8.015	8	79	34	24	36	M2263-0800AE H7	●		
10H7	10.000 - 10.015	10	89	34	25	36	M2263-1000AE H7	●		
12H7	12.000 - 12.018	12	102	47	35	40	M2263-1200AE H7	●		
14H7	14.000 - 14.018	14	107	60	43	45	M2263-1400AE H7	●		
16H7	16.000 - 16.018	16	115	65	45	48	M2263-1600AE H7	●		

● available ex stock Germany

*The given bore diameters can only be guaranteed under perfect machining conditions and a run-out < 10 μ m. Workpiece material and lubricant may also have an impact on the bore size. Other diameters and lengths can be offered on request at a minimum order quantity of three pieces per size.

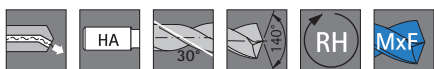
Intermediate sizes and other coatings:

Minimum order quantities for intermediate dimensions:

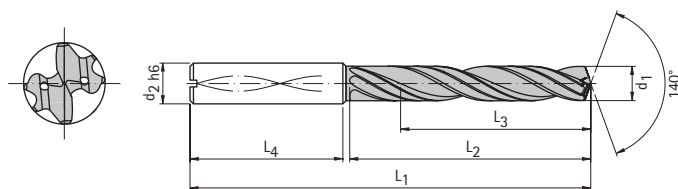
$\leq \varnothing 10$ mm: 5 off
 $> \varnothing 10 \leq 20$ mm: 3 off
 $> \varnothing 20$ mm: 2 off

Prices for intermediate sizes and other coatings available on request.

MEGA-Drill-Reamer M2265



5xD **P** **K₁** **K₂** **N**



Design:

Drill diameter: 5.97 – 16.02 mm
 Bore tolerance: ± 0.003 (standard)
 No. of margins: 2+4
 Shank form: HA (DIN 6535)
 Coating: MxF

Drill diameter d_1 (± 0.003) mm	Recommended for bore diameter* min. – max. mm	Dimensions					Shank L_4 mm	Order No.		
		Shank d_2 h6 mm	Total length L_1 mm	Flute depth L_2 mm	Drilling depth L_3 mm	Shank L_4 mm				
5.97	5.965 – 5.980	6	91	53	43	36	M2265-0597AE ± 0.003	●		
5.98	5.975 – 5.990	6	91	53	43	36	M2265-0598AE ± 0.003	●		
5.99	5.985 – 6.000	6	91	53	43	36	M2265-0599AE ± 0.003	●		
6.00	5.995 – 6.010	6	91	53	43	36	M2265-0600AE ± 0.003	●		
6.01	6.005 – 6.020	6	91	53	43	36	M2265-0601AE ± 0.003	●		
6.02	6.015 – 6.030	6	91	53	43	36	M2265-0602AE ± 0.003	●		
6.32	6.315 – 6.330	8	91	53	43	36	M2265-0632AE ± 0.003	●		
6.33	6.325 – 6.340	8	91	53	43	36	M2265-0633AE ± 0.003	●		
6.34	6.335 – 6.350	8	91	53	43	36	M2265-0634AE ± 0.003	●		
6.35	6.345 – 6.360	8	91	53	43	36	M2265-0635AE ± 0.003	●		
6.36	6.355 – 6.370	8	91	53	43	36	M2265-0636AE ± 0.003	●		
6.37	6.365 – 6.380	8	91	53	43	36	M2265-0637AE ± 0.003	●		
7.97	7.965 – 7.980	8	91	53	43	36	M2265-0797AE ± 0.003	●		
7.98	7.975 – 7.990	8	91	53	43	36	M2265-0798AE ± 0.003	●		
7.99	7.985 – 8.000	8	91	53	43	36	M2265-0799AE ± 0.003	●		
8.00	7.995 – 8.010	8	91	53	43	36	M2265-0800AE ± 0.003	●		
8.01	8.005 – 8.020	8	91	53	43	36	M2265-0801AE ± 0.003	●		
8.02	8.015 – 8.030	8	91	53	43	36	M2265-0802AE ± 0.003	●		

● available ex stock Germany

*The given bore diameters can only be guaranteed under perfect machining conditions and a run-out < 10 μm . Workpiece material and lubricant may also have an impact on the bore size. Other diameters and lengths can be offered on request at a minimum order quantity of three pieces per size.

Intermediate sizes and other coatings:

Minimum order quantities for intermediate dimensions:

$\leq \varnothing$ 10 mm: 5 off
 $> \varnothing$ 10 \leq 20 mm: 3 off
 $> \varnothing$ 20 mm: 2 off

Prices for intermediate sizes and other coatings available on request.

Drill diameter d_1 (± 0.003) mm	Recommended for bore diameter* min. - max. mm	Dimensions					Shank L_4 mm	Order No.		
		Shank d_2 h6 mm	Total length L_1 mm	Flute depth L_2 mm	Drilling depth L_3 mm					
9.48	9.475 - 9.490	10	103	61	49	40	M2265-0948AE ± 0.003	●		
9.49	9.485 - 9.500	10	103	61	49	40	M2265-0949AE ± 0.003	●		
9.50	9.495 - 9.510	10	103	61	49	40	M2265-0950AE ± 0.003	●		
9.52	9.515 - 9.530	10	103	61	49	40	M2265-0952AE ± 0.003	●		
9.53	9.525 - 9.540	10	103	61	49	40	M2265-0953AE ± 0.003	●		
9.54	9.535 - 9.550	10	103	61	49	40	M2265-0954AE ± 0.003	●		
9.97	9.965 - 9.980	10	103	61	49	40	M2265-0997AE ± 0.003	●		
9.98	9.975 - 9.990	10	103	61	49	40	M2265-0998AE ± 0.003	●		
9.99	9.985 - 10.000	10	103	61	49	40	M2265-0999AE ± 0.003	●		
10.00	9.995 - 10.010	10	103	61	49	40	M2265-1000AE ± 0.003	●		
10.01	10.005 - 10.020	10	103	61	49	40	M2265-1001AE ± 0.003	●		
10.02	10.015 - 10.030	10	103	61	49	40	M2265-1002AE ± 0.003	●		
11.97	11.964 - 11.982	12	118	71	56	45	M2265-1197AE ± 0.003	●		
11.98	11.974 - 11.992	12	118	71	56	45	M2265-1198AE ± 0.003	●		
11.99	11.984 - 12.002	12	118	71	56	45	M2265-1199AE ± 0.003	●		
12.00	11.994 - 12.012	12	118	71	56	45	M2265-1200AE ± 0.003	●		
12.01	12.004 - 12.022	12	118	71	56	45	M2265-1201AE ± 0.003	●		
12.02	12.014 - 12.032	12	118	71	56	45	M2265-1202AE ± 0.003	●		
12.67	12.664 - 12.682	14	124	77	60	45	M2265-1267AE ± 0.003	●		
12.68	12.674 - 12.692	14	124	77	60	45	M2265-1268AE ± 0.003	●		
12.69	12.684 - 12.702	14	124	77	60	45	M2265-1269AE ± 0.003	●		
12.70	12.694 - 12.712	14	124	77	60	45	M2265-1270AE ± 0.003	●		
12.71	12.704 - 12.722	14	124	77	60	45	M2265-1271AE ± 0.003	●		
12.72	12.714 - 12.732	14	124	77	60	45	M2265-1272AE ± 0.003	●		

MEGA-Drill-Reamers for drill holes with tolerance H7

Drill diameter d_1 (± 0.003) mm	Recommended for bore diameter* min. - max. mm	Dimensions					Shank L_4 mm	Order No.		
		Shank d_2 h6 mm	Total length L_1 mm	Flute depth L_2 mm	Drilling depth L_3 mm					
6H7	6.000 - 6.012	6	91	53	43	36	M2265-0600AE H7	●		
8H7	8.000 - 8.015	8	91	53	43	36	M2265-0800AE H7	●		
10H7	10.000 - 10.015	10	103	61	49	40	M2265-1000AE H7	●		
12H7	12.000 - 12.018	12	118	71	56	45	M2265-1200AE H7	●		
14H7	14.000 - 14.018	14	124	77	60	45	M2265-1400AE H7	●		
16H7	16.000 - 16.018	16	133	83	63	48	M2265-1600AE H7	●		

● available ex stock Germany

*The given bore diameters can only be guaranteed under perfect machining conditions and a run-out < 10 μ m. Workpiece material and lubricant may also have an impact on the bore size. Other diameters and lengths can be offered on request at a minimum order quantity of three pieces per size.

Intermediate sizes and other coatings:

Minimum order quantities for intermediate dimensions:

≤ \varnothing 10 mm: 5 off
 > \varnothing 10 ≤ 20 mm: 3 off
 > \varnothing 20 mm: 2 off

Prices for intermediate sizes and other coatings available on request.



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