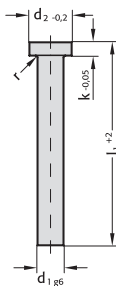


Ejector pin, hardened, DIN ISO 6751



237.1.



Material:

WS
Order No 237.1.
Hardness:
Shaft 60 ± 2 HRC
Head 45 ± 5 HRC

WS = Alloy Tool Steel

Material No 1.2210, 1.2516, 1.2842 or similar.

Characteristics: Hard and tough tool steel, medium wear resistance.

Execution:

Shank hardened and precision ground.
Head hot upset-forged.

237.1. Ejector pin, hardened, DIN ISO 6751

d ₁	d ₂	k	r	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁
1	2.5	1.2	0.2	●	●	●	●	●	●	●				
1.1	2.5	1.2	0.2	●	●	●	●	●	●	●				
1.2	2.5	1.2	0.2	●	●	●	●	●	●	●				
1.3	3	1.5	0.2	●	●	●	●	●	●	●				
1.4	3	1.5	0.2	●	●	●	●	●	●	●				
1.5	3	1.5	0.2	●	●	●	●	●	●	●				
1.6	3	1.5	0.2	●	●	●	●	●	●	●				
1.7	3	1.5	0.2	●	●	●	●	●	●	●				
1.8	3	1.5	0.2	●	●	●	●	●	●	●				
1.9	3	1.5	0.2	●	●	●	●	●	●	●				
2	4	2	0.2	●	●	●	●	●	●	●	●	●		
2.2	4	2	0.2	●	●	●	●	●	●	●	●	●		
2.5	5	2	0.3	●	●	●	●	●	●	●	●	●	●	
2.7	5	2	0.3	●	●	●	●	●	●	●	●	●	●	
3	6	3	0.3	●	●	●	●	●	●	●	●	●	●	●
3.2	6	3	0.3	●	●	●	●	●	●	●	●	●	●	●
3.5	7	3	0.3	●	●	●	●	●	●	●	●	●	●	●
3.7	7	3	0.3	●	●	●	●	●	●	●	●	●	●	●
4	8	3	0.3	●	●	●	●	●	●	●	●	●	●	●
4.2	8	3	0.3	●	●	●	●	●	●	●	●	●	●	●
4.5	8	3	0.3	●	●	●	●	●	●	●	●	●	●	●

Ordering Code (example):

Ejector pin, hardened, DIN ISO 6751	=237.1.
Shaft diameter d ₁	1 mm = 0100.
Length l ₁	40 mm = 040
Order No	=237.1.0100.040

Ejector pin, hardened, DIN ISO 6751

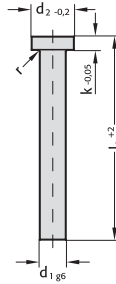
Material: 237.1.

WS
Order No 237.1.
Hardness:
Shaft 60 ± 2 HRC
Head 45 ± 5 HRC

WS = Alloy Tool Steel
Material No 1.2210, 1.2516, 1.2842 or similar.

Characteristics: Hard and tough tool steel,
medium wear resistance.

Execution:
Shank hardened and precision ground.
Head hot upset-forged.



237.1. Ejector pin, hardened, DIN ISO 6751

d ₁	d ₂	k	r	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	
				40	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	
4.7	8	3	0.3																	
5	10	3	0.3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
5.2	10	3	0.3																	
5.5	10	3	0.3																	
6	12	5	0.5	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
6.2	12	5	0.5																	
6.5	12	5	0.5																	
7	12	5	0.5																	
8	14	5	0.5		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
8.2	14	5	0.5																	
8.5	14	5	0.5																	
9	14	5	0.5																	
10	16	5	0.5			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
10.2	16	5	0.5																	
10.5	16	5	0.5																	
11	16	5	0.5																	
12	18	7	0.8			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
12.2	18	7	0.8																	
12.5	18	7	0.8																	
14	22	7	0.8			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
16	22	7	0.8																	
18	24	7	0.8																	
20	26	8	1																	

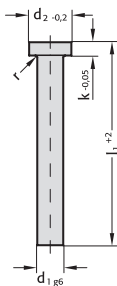
Ordering Code (example):

Ejector pin, hardened, DIN ISO 6751	=	237.1.
Shaft diameter d ₁	1 mm =	0100.
Length l ₁	40 mm =	040
Order No	=	237.1.0100.040

Ejector pin, nitrided, DIN ISO 6751



237.8.



Material:

NWA
 Order No 237.8.
 Hardness:
 Shaft* ≥ 950 HV 0,3
 Head 45 ± 5 HRC
 Core strength > 1400 N/mm²

NWA = Hot-Work Tool Steel – Suitable for Nitriding

Material No 1.2344 or similar.
 Characteristics: Chrome-Molybdenum-Chrome-Molybdenum-Vanadium hot working die steel; core strength: > 1400 N/mm²; temperature resistant up to 650°C; surface hardness (nitrided) $\cong 950$ HV 0,3.

Execution:

Shank nitrided and precision ground.
 Head hot upset-forged.

Note:

*Owing to thinness of nitrided skin, hardness testing on shank restricted to Vickers only.
 Test load = 3 N max.

237.8. Ejector pin, nitrided, DIN ISO 6751

d ₁	d ₂	k	r	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	
				100	125	160	200	250	315	400	500	630	800
1.5	3	1.5	0.2	●	●	●	●	●	●				
2	4	2	0.2	●	●	●	●	●	●				
2.2	4	2	0.2	●	●	●	●	●	●				
2.4	5	2	0.2	●	●	●	●	●	●				
2.5	5	2	0.3	●	●	●	●	●	●				
2.7	5	2	0.3	●	●	●	●	●	●				
2.9	5	2	0.3	●	●	●	●	●	●				
3	6	3	0.3	●	●	●	●	●	●	●			
3.2	6	3	0.3	●	●	●	●	●	●	●			
3.4	6	3	0.3	●	●	●	●	●	●	●			
3.5	7	3	0.3	●	●	●	●	●	●	●			
3.7	7	3	0.3	●	●	●	●	●	●	●			
3.9	7	3	0.3	●	●	●	●	●	●	●			
4	8	3	0.3	●	●	●	●	●	●	●			
4.2	8	3	0.3	●	●	●	●	●	●	●			
4.4	8	3	0.3	●	●	●	●	●	●	●			
4.5	8	3	0.3	●	●	●	●	●	●	●			
4.7	8	3	0.3	●	●	●	●	●	●	●			
4.9	8	3	0.3	●	●	●	●	●	●	●			
5	10	3	0.3	●	●	●	●	●	●	●	●		
5.2	10	3	0.3	●	●	●	●	●	●	●	●		
5.4	10	3	0.3	●	●	●	●	●	●	●	●		
5.5	10	3	0.3	●	●	●	●	●	●	●	●		
5.7	10	3	0.3	●	●	●	●	●	●	●	●		
5.9	10	3	0.3	●	●	●	●	●	●	●	●		
6	12	5	0.5	●	●	●	●	●	●	●	●	●	●

Ordering Code (example):

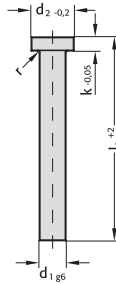
Ejector pin, nitrided, DIN ISO 6751	=237.8.
Shaft diameter d ₁	1.5 mm = 0150.
Length l ₁	100 mm = 100
Order No	=237.8.0150.100

Ejector pin, nitrided, DIN ISO 6751

Material:

NWA
 Order No 237.8.
 Hardness:
 Shaft* ≥ 950 HV 0,3
 Head 45 ± 5 HRC
 Core strength > 1400 N/mm²

237.8.



NWA = Hot-Work Tool Steel – Suitable for Nitriding

Material No 1.2344 or similar.

Characteristics: Chrome-Molybdenum-Chrome-Molybdenum-Vanadium hot working die steel; core strength: > 1400 N/mm²; temperature resistant up to 650°C; surface hardness (nitrided) $\cong 950$ HV 0,3.

Execution:

Shank nitrided and precision ground.
 Head hot upset-forged.

Note:

*Owing to thinness of nitrided skin, hardness testing on shank restricted to Vickers only.
 Test load = 3 N max.

237.8. Ejector pin, nitrided, DIN ISO 6751

d ₁	d ₂	k	r	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁
				100	125	160	200	250	315	400	500	630	800	1000
6.2	12	5	0.5	●	●	●	●	●	●	●	●	●		
6.5	12	5	0.5	●	●	●	●	●	●	●	●	●		
6.7	12	5	0.5	●	●	●	●	●	●	●	●	●		
6.9	12	5	0.5	●	●	●	●	●	●	●	●	●		
7	12	5	0.5	●	●	●	●	●	●	●	●	●		
7.2	12	5	0.5	●	●	●	●	●	●	●	●	●		
7.8	12	5	0.5	●	●	●	●	●	●	●	●	●		
8	14	5	0.5	●	●	●	●	●	●	●	●	●	●	●
8.2	14	5	0.5	●	●	●	●	●	●	●	●	●	●	●
8.4	14	5	0.5	●	●	●	●	●	●	●	●	●	●	●
8.5	14	5	0.5	●	●	●	●	●	●	●	●	●		
9	14	5	0.5	●	●	●	●	●	●	●	●	●		
9.7	14	5	0.5	●	●	●	●	●	●	●	●	●		
10	16	5	0.5	●	●	●	●	●	●	●	●	●	●	●
10.2	16	5	0.5	●	●	●	●	●	●	●	●	●	●	●
10.5	16	5	0.5	●	●	●	●	●	●	●	●	●	●	●
11	16	5	0.5	●	●	●	●	●	●	●	●	●		
12	18	7	0.8	●	●	●	●	●	●	●	●	●	●	●
12.2	18	7	0.8	●	●	●	●	●	●	●	●	●	●	●
12.5	18	7	0.8	●	●	●	●	●	●	●	●	●	●	●
14	22	7	0.8	●	●	●	●	●	●	●	●	●	●	●
16	22	7	0.8	●	●	●	●	●	●	●	●	●	●	●
18	24	7	0.8	●	●	●	●	●	●	●	●	●	●	●
20	26	8	1	●	●	●	●	●	●	●	●	●	●	●
25	32	10	1	●	●	●	●	●	●	●	●	●	●	●
32	40	10	1	●	●	●	●	●	●	●	●	●	●	●

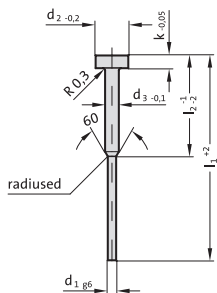
Ordering Code (example):

Ejector pin, nitrided, DIN ISO 6751	=237.8.
Shaft diameter d ₁	1.5 mm = 0150.
Length l ₁	100 mm = 100
Order No	=237.8.0150.100

Ejector pin, hardened, round stepped, DIN ISO 8694



238.1.



Material:

WS
 Order No 238.1.
 Hardness:
 Shaft 60 ± 2 HRC
 Head 45 ± 5 HRC

WS = Alloy Tool Steel

Material No 1.2210, 1.2516, 1.2842 or similar.

Characteristics: Hard and tough tool steel, medium wear resistance.

Execution:

Shank hardened and precision ground.
 Head hot upset-forged.

238.1. Ejector pin, hardened, round stepped, DIN ISO 8694

d ₁	d ₂	d ₃	k	l ₁	63	80	100	125	160	200
				l ₂	30	32	50	50	63	80
0.8	4	2	2		●					
0.9	4	2	2		●	●	●	●	●	
1	4	2	2		●	●	●	●	●	●
1.1	4	2	2		●	●	●	●	●	●
1.2	4	2	2		●	●	●	●	●	●
1.3	4	2	2		●	●	●	●	●	●
1.4	4	2	2		●	●	●	●	●	●
1.5	6	3	3		●	●	●	●	●	●
1.6	6	3	3		●	●	●	●	●	●
1.7	6	3	3		●	●	●	●	●	●
1.8	6	3	3		●	●	●	●	●	●
1.9	6	3	3		●	●	●	●	●	●
2	6	3	3		●	●	●	●	●	●
2.1	6	3	3		●	●	●	●	●	●
2.2	6	3	3			●	●	●	●	●
2.3	6	3	3			●	●	●	●	●
2.4	6	3	3			●	●	●	●	●
2.5	6	3	3			●	●	●	●	●

Ordering Code (example):

Ejector pin, hardened, round stepped, DIN ISO 8694	=238.1.
Diameter d ₁	0.8 mm = 0080.
Length l ₁	63 mm = 063
Order No	=238.1.0080. 063

Ejector pin, nitrided, round stepped, DIN ISO 8694

Material: 238.8.

NWA
 Order No 238.8.
 Hardness:
 Shaft* ≥ 950 HV 0,3
 Head 45 ± 5 HRC
 Core strength > 1400 N/mm²

NWA = Hot-Work Tool Steel – Suitable for Nitriding

Material No 1.2344 or similar.

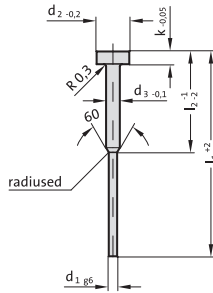
Characteristics: Chrome-Molybdenum-Chrome-Molybdenum-Vanadium hot working die steel; core strength: > 1400 N/mm²; temperature resistant up to 650°C; surface hardness (nitrided) $\cong 950$ HV 0,3.

Execution:

Shank nitrided and precision ground.
 Head hot upset-forged.

Note:

*Owing to thinness of nitrided skin, hardness testing on shank restricted to Vickers only.
 Test load = 3 N max.



238.8. Ejector pin, nitrided, round stepped, DIN ISO 8694

d ₁	d ₂	d ₃	k	l ₁	63	80	100	125	160	200
				l ₂	30	32	50	50	63	80
0.8	4	2	2		●	●	●	●	●	
0.9	4	2	2		●	●	●	●	●	
1	4	2	2		●	●	●	●	●	
1.1	4	2	2		●	●	●	●	●	
1.2	4	2	2		●	●	●	●	●	
1.3	4	2	2		●	●	●	●	●	
1.4	4	2	2		●	●	●	●	●	
1.5	6	3	3		●	●	●	●	●	●
1.6	6	3	3		●	●	●	●	●	●
1.7	6	3	3		●	●	●	●	●	●
1.8	6	3	3		●	●	●	●	●	●
1.9	6	3	3		●	●	●	●	●	●
2	6	3	3		●	●	●	●	●	●
2.2	6	3	3		●	●	●	●	●	●
2.5	6	3	3		●	●	●	●	●	●

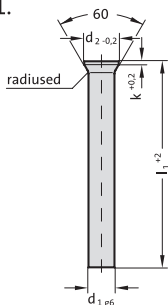
Ordering Code (example):

Ejector pin, nitrided, round stepped, DIN ISO 8694	=238.8.
Diameter d ₁	0.8 mm = 0080.
Length l ₁	63 mm = 063
Order No	=238.8. 0080. 063

Ejector pin, hardened, similar to DIN 1530 Shape D



239.1.



Material:

WS
Order No 239.1.
Hardness:
Shaft 60 ± 2 HRC
Head 45 ± 5 HRC

WS = Alloy Tool Steel

Material No 1.2210, 1.2516, 1.2842 or similar.

Characteristics: Hard and tough tool steel, medium wear resistance.

Execution:

Shank hardened and precision ground.
Head hot upset-forged.

239.1. Ejector pin, hardened, similar to DIN 1530 Shape D

d ₁	d ₂	k	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁
			40	60	71	80	100	125	160	200	250	315
0.8	1.4	0.5										
0.9	1.6	0.5										
1	1.8	0.5	●	●	●	●	●	●	●	●		
1.1	1.8	0.5			●	●	●	●	●	●		
1.2	2	0.5			●	●	●	●	●	●		
1.25	2	0.5			●	●	●	●	●	●		
1.3	2	0.5			●	●	●	●	●	●		
1.4	2.2	0.5			●	●	●	●	●	●		
1.5	2.2	0.5	●	●	●	●	●	●	●	●		
1.6	2.5	0.5	●	●	●	●	●	●	●	●		
1.7	2.5	0.5			●	●	●	●	●	●		
1.75	2.8	0.5			●	●	●	●	●	●		
1.8	2.8	0.5			●	●	●	●	●	●		
1.9	2.8	0.5			●	●	●	●	●	●		
2	3	0.5	●	●	●	●	●	●	●	●		●
2.1	3.2	0.5			●	●	●	●	●	●		
2.2	3.2	0.5			●	●	●	●	●	●		●
2.25	3.2	0.5			●	●	●	●	●	●		
2.3	3.5	0.5			●	●	●	●	●	●		
2.4	3.5	0.5			●	●	●	●	●	●		
2.5	3.5	0.5	●	●	●	●	●	●	●	●		●
2.6	4	0.5			●	●	●	●	●	●		
2.7	4	0.5			●	●	●	●	●	●		
2.75	4	0.5			●	●	●	●	●	●		
2.8	4	0.5			●	●	●	●	●	●		●
2.9	4	0.5			●	●	●	●	●	●		
3	4.5	0.5	●	●	●	●	●	●	●	●		●
3.1	4.5	0.5			●	●	●	●	●	●		
3.2	4.5	0.5			●	●	●	●	●	●		

Ordering Code (example):

Ejector pin, hardened, similar to DIN 1530 Shape D	=239.1.
Shaft diameter d ₁	0.8 mm = 0080.
Length l ₁	100 mm = 100
Order No	=239.1.0080. 100

Ejector pin, hardened, similar to DIN 1530 Shape D

Material:

WS
 Order No 239.1.
 Hardness:
 Shaft 60 ± 2 HRC
 Head 45 ± 5 HRC

WS = Alloy Tool Steel

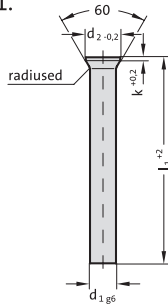
Material No 1.2210, 1.2516, 1.2842 or similar.

Characteristics: Hard and tough tool steel,
 medium wear resistance.

Execution:

Shank hardened and precision ground.
 Head hot upset-forged.

239.1.



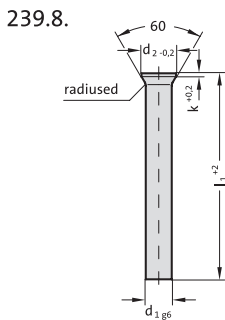
239.1. Ejector pin, hardened, similar to DIN 1530 Shape D

d_1	d_2	k	l_1	l_1	l_1	l_1	l_1	l_1	l_1	l_1	l_1	l_1
			40	60	71	80	100	125	160	200	250	315
3.25	4.5	0.5			●		●	●	●	●		
3.5	5	0.5			●	●	●	●	●	●	●	●
3.6	5	0.5			●		●	●	●	●		●
3.75	5	0.5			●		●	●	●	●		
4	5.5	0.5	●		●		●	●	●	●	●	
4.1	5.5	0.5		●	●		●	●	●	●		
4.2	5.5	0.5			●		●	●	●	●		
4.25	5.5	0.5			●		●	●	●	●		
4.5	6	0.5			●		●	●	●	●		
4.6	6	0.5			●		●	●	●	●		
5	6.5	0.5	●		●		●	●	●	●	●	
5.1	6.5	0.5		●	●		●	●	●	●		●
5.2	6.5	0.5			●		●	●	●	●		
5.25	6.5	0.5			●		●	●	●	●		
5.5	7	0.5			●		●	●	●	●		
6	8	0.5	●		●		●	●	●	●	●	●
6.2	8	1		●	●		●	●	●	●		●
6.5	9	1			●		●	●	●	●		●
7	9	1			●		●	●	●	●		●
7.5	10	1			●		●	●	●	●		●
8	10	1		●	●		●	●	●	●		●
8.2	10	1			●		●	●	●	●		●
8.5	11	1			●		●	●	●	●		●
9	11	1			●		●	●	●	●		●
10	12	1			●		●	●	●	●		●
12	14	1			●	●	●	●	●	●		●
14	16	1.5			●		●	●	●	●		●
16	18	1.5			●		●	●	●	●		●

Ordering Code (example):

Ejector pin, hardened, similar to DIN 1530 Shape D	=239.1.
Shaft diameter d_1	0.8 mm = 0080.
Length l_1	100 mm = 100
Order No	=239.1.0080. 100

Ejector pin, nitrided, similar to DIN 1530 Shape D



Material:

NWA
 Order No 239.8.
 Hardness:
 Shaft* ≥ 950 HV 0,3
 Head 45 ± 5 HRC
 Core strength > 1400 N/mm²

NWA = Hot-Work Tool Steel – Suitable for Nitriding

Material No 1.2344 or similar.
 Characteristics: Chrome-Molybdenum-Chrome-Molybdenum-Vanadium hot working die steel; core strength: > 1400 N/mm²; temperature resistant up to 650°C; surface hardness (nitrided) $\cong 950$ HV 0,3.

Execution:

Shank nitrided and precision ground.
 Head hot upset-forged.

Note:

*Owing to thinness of nitrided skin, hardness testing on shank restricted to Vickers only.
 Test load = 3 N max.

239.8. Ejector pin, nitrided, similar to DIN 1530 Shape D

d ₁	d ₂	k	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁
			100	125	160	200	250	315
3	4.5	0.5	●	●	●	●	●	●
4	5.5	0.5	●	●	●	●	●	●
5	6.5	0.5	●	●	●	●	●	●
6	8	0.5	●	●	●	●	●	●
8	10	1	●	●	●	●	●	●
10	12	1	●	●	●	●	●	●
12	14	1	●	●	●	●	●	●
14	16	1.5	●	●	●	●	●	●
16	18	1.5	●	●	●	●	●	●

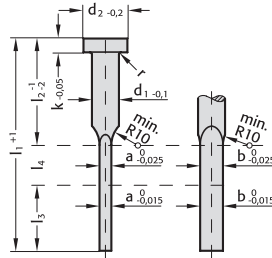
Ordering Code (example):

Ejector pin, nitrided, similar to DIN 1530 Shape D		=239.8.
Shaft diameter d ₁	3 mm	= 300.
Length l ₁	100 mm	= 100
Order No		=239.8. 300.100

Flat ejector pin, hardened, similar to DIN ISO 8693



263.1.



Material:

WS
Order No 263.1.
Hardness:
Shaft 60 ± 2 HRC
Head 45 ± 5 HRC

WS = Alloy Tool Steel

Material No 1.2210, 1.2516, 1.2842 or similar.

Characteristics: Hard and tough tool steel, medium wear resistance.

Execution:

Shank hardened and precision ground.
Head hot upset-forged.

Note:

Special dimensions a and b available on request.

263.1. Flat ejector pin, hardened, similar to DIN ISO 8693

d ₁	4	4.2	4.2	4.2	5	5	5	6	6	6	6	8	8	8	10	10	12	12
d ₂	8	8	8	8	10	10	10	12	12	12	12	14	14	14	16	16	18	18
k	3	3	3	3	3	3	3	5	5	5	5	5	5	5	5	5	7	7
r	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.8	0.8
a	1	0.8	1	1.2	1	1.2	1.5	1	1.2	1.5	2	1.2	1.5	2	1.5	2	2	2.5
b	3.5	3.8	3.8	3.8	4.5	4.5	4.5	5.5	5.5	5.5	5.5	7.5	7.5	7.5	9.5	9.5	11.5	11.5
l ₁	63	30	25	10														
l ₂		80	40	30	10													
l ₃			100	50	40	10												
l ₄				125	60	50	15											
					160	80	50	30										
						200	100	60	40									
							250	125	60	65								
								315	160	70	85							

Ordering Code (example):

Flat ejector pin, hardened, similar to DIN ISO 8693	=263.1.
Width a	1 mm = 10.
Length b	3.5 mm = 035.
Length l ₁	63 mm = 063
Order No	=263.1.10.035.063

Flat ejector pin, nitrided, similar to DIN ISO 8693

Material:

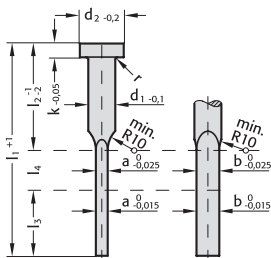
NWA
 Order No 263.8.
 Hardness:
 Shaft* ≥ 950 HV 0,3
 Head 45 ± 5 HRC
 Core strength > 1400 N/mm²

263.8.

NWA = Hot-Work Tool Steel – Suitable for Nitriding

Material No 1.2344 or similar.

Characteristics: Chrome-Molybdenum-Chrome-Molybdenum-Vanadium hot working die steel; core strength: > 1400 N/mm²; temperature resistant up to 650°C; surface hardness (nitrided) $\cong 950$ HV 0,3.



Execution:

Shank nitrided and precision ground.
 Head hot upset-forged.

Note:

*Owing to thinness of nitrided skin, hardness testing on shank restricted to Vickers only.
 Test load = 3 N max.
 Special dimensions a and b available on request.

263.8. Flat ejector pin, nitrided, similar to DIN ISO 8693

	4	4.2	4.2	4.2	5	5	5	5	6	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	16	16
d_1	4	4.2	4.2	4.2	5	5	5	5	6	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	16	16
d_2	8	8	8	8	10	10	10	10	12	12	12	12	12	14	14	14	14	16	16	16	16	18	18	18	18	22	22
k	3	3	3	3	3	3	3	3	5	5	5	5	5	5	5	5	5	5	5	5	5	7	7	7	7	7	7
r	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,8	0,8	0,8	0,8	0,8	0,8
a	1	0,8	1	1,2	1	1,2	1,5	1	1,2	1,5	2	1,2	1,5	2	1,2	1,5	2	1,5	2	1,5	2	2	2	2,5	2	2,5	2,5
b	3,5	3,8	3,8	3,8	4,5	4,5	4,5	4,5	5,5	5,5	5,5	5,5	5,5	7,5	7,5	7,5	7,5	9,5	9,5	9,5	9,5	11,5	11,5	11,5	15,5	15,5	
l_1	63	30	25	10																							
l_2	80	40	30	10																							
l_3	100	50	40	10																							
l_4	125	60	50	15																							
	160	80	50	30																							
	200	100	60	40																							
	250	125	60	65																							
	315	160	70	85																							
	400	200	95	105																							

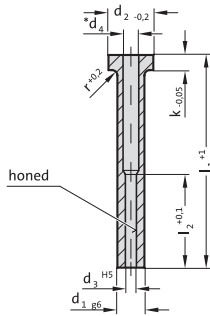
Ordering Code (example):

Flat ejector pin, nitrided, similar to DIN ISO 8693	=263.8.
Width a	1 mm = 10.
Length b	3,5 mm = 35.
Length l_1	63 mm = 63
Order No	=263.8. 10.35.63

Ejector sleeve, hardened, DIN ISO 8405



264.1.



Material:

WS
Order No 264.1.
Hardness:
Shaft 60 ± 2 HRC
Head 45 ± 5 HRC

WS = Alloy Tool Steel

Material No 1.2210, 1.2516, 1.2842 or similar.

Characteristics: Hard and tough tool steel, medium wear resistance.

Execution:

Shank hardened and precision ground.
Head hot upset-forged.
Guide bore precision ground and honed.
*up to Ø d₄ = 4,5 tolerance +0,2/-0,1
*from Ø d₄ = 5 tolerance +0,3/-0,1

264.1. Ejector sleeve, hardened, DIN ISO 8405

d ₁	d ₃	d ₄	d ₂	k	r	l ₂	l ₁	l ₁	l ₃	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁		
							70	75	80	90	100	125	150	175	200	225	250	275	
2.5	1.25	1.6	5	2	0.3	20	●		●		●								
3	1.5	1.8	6	3	0.3	35		●		●		●		●					
3	1.6	1.9	6	3	0.3	35		●		●		●		●					
4	2	2.5	8	3	0.3	35		●		●		●		●		●			
4	2.2	2.4	8	3	0.3	35		●		●		●		●		●			
5	2.5	3	10	3	0.3	35		●		●		●		●		●			
5	2.7	3	10	3	0.3	45		●		●		●		●		●			
5	3	3.5	10	3	0.3	45		●		●		●		●		●			
5	3.2	3.5	10	3	0.3	45		●		●		●		●		●			
6	3.5	4	12	5	0.5	45		●		●		●		●		●			
6	3.7	4	12	5	0.5	45		●		●		●		●		●			
6	4	4.3	12	5	0.5	45		●		●		●		●		●			
8	4.2	5	14	5	0.5	45		●		●		●		●		●			
8	5	5.5	14	5	0.5	45		●		●		●		●		●			
8	5.2	5.5	14	5	0.5	45		●		●		●		●		●			
10	6	6.5	16	5	0.5	45		●		●		●		●		●			
10	6.2	6.5	16	5	0.5	45		●		●		●		●		●			
12	8	8.5	20	7	0.8	45		●		●		●		●		●			
12	8.2	8.5	20	7	0.8	45		●		●		●		●		●			
14	10	10.5	22	7	0.8	45		●		●		●		●		●			
14	10.5	11	22	7	0.8	45		●		●		●		●		●			
16	12	12.5	22	7	0.8	45		●		●		●		●		●			
16	12.5	13	22	7	0.8	45		●		●		●		●		●			

Ordering Code (example):

Ejector sleeve, hardened, DIN ISO 8405		=264.1.
Diameter ejector pin d ₃	1.25 mm =	0125.
Length l ₁	70 mm =	070
Order No		=264.1.0125.070

Ejector sleeve, nitrided, DIN ISO 8405

Material:

NWA
 Order No 264.8.
 Hardness:
 Shaft** ≥ 950 HV 0,3
 Head 45 ± 5 HRC
 Tensile Strength (core) > 1400 N/mm²

264.8.

NWA = Hot-Work Tool Steel – Suitable for Nitriding

Material No 1.2344 or similar.

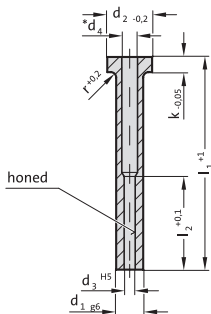
Characteristics: Chrome-Molybdenum-Chrome-Molybdenum-Vanadium hot working die steel; core strength: > 1400 N/mm²; temperature resistant up to 650°C; surface hardness (nitrided) $\cong 950$ HV 0,3.

Execution:

Shank nitrided and precision ground.
 Head hot upset-forged.
 Guide bore precision ground and honed.
 *up to $\varnothing d_4 = 4,5$ tolerance $+0,2/-0,1$
 *from $\varnothing d_4 = 5$ tolerance $+0,3/-0,1$

Note:

**Owing to thinness of nitrided skin, hardness testing on shank restricted to Vickers only.
 Test load = 3 N max.



264.8. Ejector sleeve, nitrided, DIN ISO 8405

d ₁	d ₃	d ₄	d ₂	k	r	l ₂	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	l ₁	
							75	100	125	150	175	200	225	250	275
3	1.5	1.8	6	3	0.3	35	●	●	●	●					
3	1.6	1.9	6	3	0.3	35	●	●	●	●					
4	2	2.5	8	3	0.3	35	●	●	●	●					
4	2.2	2.4	8	3	0.3	35	●	●	●	●					
5	2.5	3	10	3	0.3	35	●	●	●	●					
5	2.7	3	10	3	0.3	45	●	●	●	●					
5	3	3.5	10	3	0.3	45	●	●	●	●	●				
5	3.2	3.5	10	3	0.3	45	●	●	●	●	●				
6	3.5	4	12	5	0.5	45	●	●	●	●	●				
6	3.7	4	12	5	0.5	45	●	●	●	●	●				
6	4	4.3	12	5	0.5	45	●	●	●	●	●	●			
8	4.2	5	14	5	0.5	45	●	●	●	●	●	●			
8	5	5.5	14	5	0.5	45	●	●	●	●	●	●	●		
8	5.2	5.5	14	5	0.5	45	●	●	●	●	●	●	●		
10	6	6.5	16	5	0.5	45	●	●	●	●	●	●	●	●	
10	6.2	6.5	16	5	0.5	45	●	●	●	●	●	●	●	●	
12	8	8.5	20	7	0.8	45	●	●	●	●	●	●	●	●	●
12	8.2	8.5	20	7	0.8	45	●	●	●	●	●	●	●	●	●
14	10	10.5	22	7	0.8	45	●	●	●	●	●	●	●	●	●
14	10.2	10.5	22	7	0.8	45	●	●	●	●	●	●	●	●	●
16	12	12.5	22	7	0.8	45	●	●	●	●	●	●	●	●	●

Ordering Code (example):

Ejector sleeve, nitrided, DIN ISO 8405	=2648.
Diameter ejector pin d ₃	1.5 mm = 150
Length l ₁	75 mm = 75
Order No	=2648. 150.75