



# Spare Parts

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## Torque for Screws

### Hexagon Socket Set Screws (DIN 913...916)

Thread	Width across flats [mm]	Tightening moment MA (nm) for property class 45H
M3	1.5	0.82
M4	2.0	1.90
M5	2.5	3.50
M6	3.0	5.50
M8	4.0	9.50
M10	5.0	20.0
M12	6.0	30.0

### Hexagon Socket Set Screws (DIN 912)

Thread	Width across flats [mm]	Tightening moment MA (nm) for property class 8.8
M3	2.5	1.1
M4	3.0	2.5
M5	4.0	5.0
M6	5.0	10.0
M8	6.0	15.0
M10	8.0	15.0

### Screws with Torx

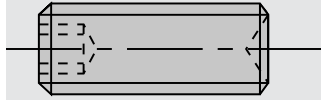
Thread	Torx-Size	Torque MA [Nm] for property class
M2.5	T8	1.31
M3	T9	2.30
M3.5	T15	2.95
M4	T15	5.20
M4x0.5	T9	2.00
M4.5	T15	5.20
M5	T20	8.60
M6	T25	15.00
M5	T15	8.00

995161

**Set Screws**

drawing

Notes



I with hexagon socket and cup point

Dimension

Ident-No.

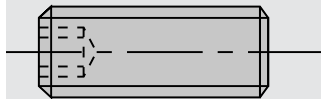
M5x4 DIN EN ISO 4029	001608
M5x5 DIN EN ISO 4029	001609
M6x4 DIN EN ISO 4029	167068
M6x6 DIN EN ISO 4029	180003
M6x5 DIN EN ISO 4029	165049
[mm]	

995161

**Set Screws**

drawing

Notes



I with hexagon socket with flat point

Dimension

Ident-No.

M5x10 DIN EN ISO 4026	180028
M6x6 DIN EN ISO 4026	163546
M6x8 DIN EN ISO 4026	180036
M8x10 DIN EN ISO 4026	059549
[mm]	

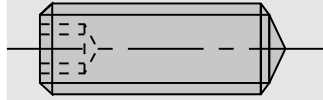


995161

**Set Screws**

drawing

Notes



I with hexagon socket with cone point

Dimension

Ident-No.

M5x10 DIN EN ISO 4027  
[mm]

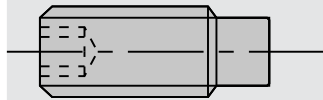
001686

995161

**Set Screws**

drawing

Notes



I with hexagon socket with dog point

Dimension

Ident-No.

M5x8 DIN EN ISO 4028	180015
M5x12 DIN EN ISO 4028	050565
M6x6 DIN EN ISO 4028	163841
M6x10 DIN EN ISO 4028	180002
M6x12 DIN EN ISO 4028	180214
M6x16 DIN EN ISO 4028	001617
M6x25 DIN EN ISO 4028	167979
M8x10 DIN EN ISO 4028	001622
M8x12 DIN EN ISO 4028	180001
M8x14 DIN EN ISO 4028	168453
M8x16 DIN EN ISO 4028	164422
M8x20 DIN EN ISO 4028	001625
M8x35 DIN EN ISO 4028	165937
M10x12 DIN EN ISO 4028	001630
M10x16 DIN EN ISO 4028	168192
M10x20 DIN EN ISO 4028	815807
M10x25 DIN EN ISO 4028	168108
M12x25 DIN EN ISO 4028	181466
[mm]	

995161

**Set Screws**

## Notes

| with hexagon socket and ball pressure screw

## Dimension

## Ident-No.

M8x20

168874 o

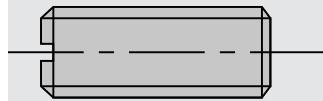
[mm]

995162

**Set Screws**

## drawing

## Notes



| slotted with flat point

## Dimension

## Ident-No.

M5x10 DIN EN 24766

001600

[mm]

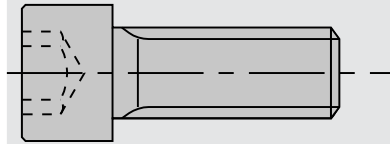


995111

## Head Cap Screws

drawing

Notes



I with hexagon socket

Dimension

Ident-No.

M5x40 DIN EN ISO 4762	001875
M6x16 DIN EN ISO 4762	001879
M6x40 DIN EN ISO 4762	001884
M8x10 DIN EN ISO 4762	001890 o
M12x30 DIN EN ISO 4762	001917
M12x50 DIN EN ISO 4762	001921
M16x40 DIN EN ISO 4762	001933
M16x50 DIN EN ISO 4762	166442
M16x50L DIN EN ISO 4762	166431
M16x70 DIN EN ISO 4762	059169
M16x120 DIN EN ISO 4762	001938
M20x40 DIN EN ISO 4762	059166 o
M20x50 DIN EN ISO 4762	166441
M20x50L DIN EN ISO 4762	166440
M20x80 DIN EN ISO 4762	056178 #
M20x120 DIN EN ISO 4762	056153

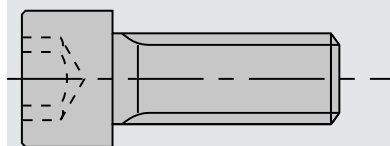
[mm]

995111

## Head Cap Screws

drawing

Notes



I with hexagon socket with low head

Dimension

Ident-No.

M5x16	165961
M8x16	180004
M8x30	180005
M8x50	180006

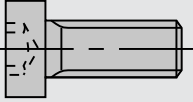
[mm]

995115

## Head Cap Screws

drawing

Notes



I with Torx

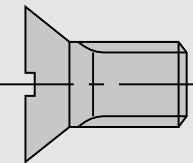
Dimension	Ø D	Ident-No.
M2,5x3 T8	3,45	168237
M2,5x4 T8	3,45	168238
M3x5,5 T8	4,35	168239
M3x10 T8	4,4	168782
M3,5x3,8 T15	7,0	162645
M3,5x5,5 T15	6,0	168236
M3,5x6,5 T15	6,2	163223
M3,5x6,5 T15	7,0	162644
M3,5x8 T15	6,25	163222
M5x12 T20	8,5	171237
[mm]	[mm]	

995122

## Countersunk Flat Headed Screws

drawing

Notes



I slotted

Dimension	Ident-No.
M5x10 DIN EN ISO 2009	055881
M5x12	180007
[mm]	



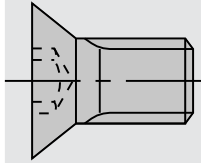


995 125

## Countersunk Flat Headed Screws

drawing

Notes



I with Torx

Dimension

Ident-No.

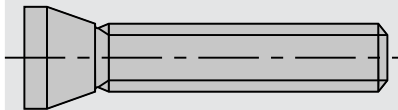
M2,5x5,5 T8	167486
M3x7,3 T8	166502
M3,5x5,5 T15	162649
M3,5x6 T15	162648
M4x0,5x3,2 T9	163925
M4x0,5x4,2 T9	165908
M4x0,5x5,3 T9	170202
M5x6 T20	176199
M5x6,8 T15	180839
M5x8 T20	164005
M5x9 T20 D=Ø9,3	827277
M5x10 T20	171236
M5x10,8 T15	180840
M5x12 T20	166709
M5x13,5 T20	171238
M5x16 T20	164839
M6x10 T20	181244
[mm]	

995 195

## Tapered Screws

drawing

Notes



I with Torx

Dimension

Ident-No.

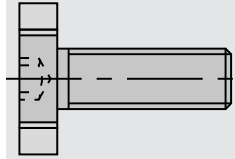
M6x17,5 T25	173490
[mm]	

995 190

## Cutter Retaining Bolts

drawing

Notes



| with hexagon socket

Dimension

Ident-No.

M16x26xØ42

173592

M12x22xØ35

173591

Ø20xM8x23

171393

Ø28xM10x26

171392

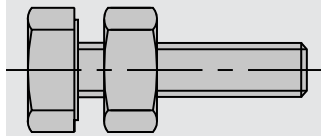
[mm]

995 190

## Stop Screws

drawing

Notes



| for shank-type tools

Dimension

Ident-No.

M8x25

stop screw

172828

M6x16

for shank Ø 16

172797

[mm]

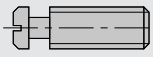
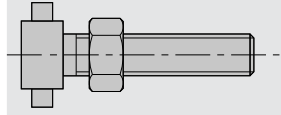


995190

**Special Screws**

drawing

Notes



| for PS-System and PS 2000-E

Dimension

Ident-No.

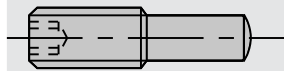
M6x20	PS-System 16 mm	172115
M8x25	stop screw	172113
M8x19	stop screw	172921
[mm]		

995191

**Special Set Screws**

drawing

Notes

| for SuperProfiler „MAN”  
| with hexagon socket

Dimension

Ident-No.

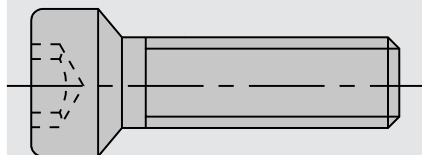
M8x24		167269
[mm]		

995191

**Screws**

drawing

Notes



| for „Klack” bottom part

Dimension

Ident-No.

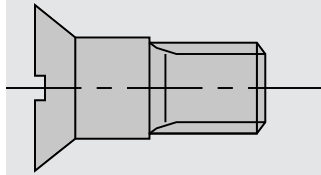
M8x24L		180013
M8x24R		180012
[mm]		

995 192

## Countersunk Flat Headed Screws

drawing

Notes



I with collar

Dimension

Ident-No.

M5x12  
[mm]

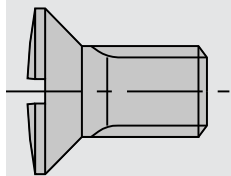
180009

995 192

## Countersunk Flat Headed Screws

Hoggers

Notes



I for hogger segments

Dimension

Ident-No.

M8x12,5  
M8x17  
[mm]

180010

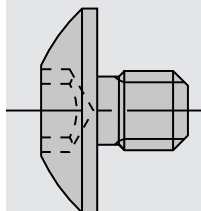
180011

995 195

## Round Head Screws

drawing

Notes



I with Torx

Dimension

Ident-No.

M3,5x4 T15  
M3,5x12 T15  
M4x5,9 T15  
[mm]

head Ø 9

head Ø 9

head Ø 9

168893

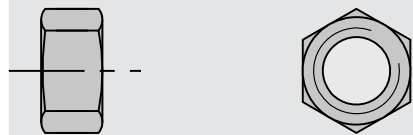
171067

167966

995210

**Hexagon Nuts**

drawing



Dimension

Ident-No.

M4 DIN EN ISO 4032

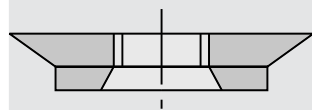
009631

M6 DIN EN ISO 4032

009633

[mm]

995290

**Special Nuts**

I for grooving cutterhead turnover knives

Dimension

Ident-No.

M4x0,5x1,6

163704

M4x0,5x2,2

163703

M4x0,5x2,75

165907

M4x0,5x4,1

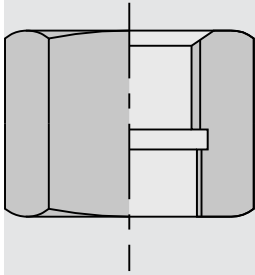
170203

[mm]

995290

**Union Nuts**

drawing



Notes

I for MK-shanks

Dimension

Ident-No.

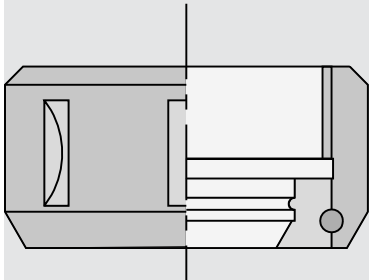
M33x3/M30x1,5	double-edged	170275 o
W 1 1/8"/W20x14	hexagonal	167911 o
W 1 1/8"/M30x1,5/L	hexagonal	167780
W 1 1/8"/M30x1,5	hexagonal	165561

[mm]

995290

**Lock Nuts**

drawing



Notes

I for draw-in collet chucks

Dimension

Ident-No.

M30x1,5R	with ball-bearing	178763
M40x1,5R	with slide bearing	178761
M48x2R	with slide bearing	178764
M50x1,5R	with slide bearing	178762 o

[mm]



955520

## Spacers

Ø D	B	Ø d	DKN	NL	Ident-No.
14	0,1	6			176422 o
14	0,2	6			176423 o
14	0,5	6			176424 o
14	1,0	6			176425 o
14	2,0	6			176426 o
14	5,0	6			176427 o
40	0,1	20			000218
40	0,2	20			000219
40	0,5	20			000220
40	1,0	20			000221
40	2,0	20			000222
40	3,0	20			000223
40	0,1	25			183756
40	0,2	25			183757
40	0,5	25			183758
40	1,0	25			183759
40	2,0	25			183760
40	4,0	25			183761
40	6,0	25			183762
40	10	25			183763
40	20	25			183764
80	0,05	22		2/4/42	017424
80	0,1	22		2/4/42	017425
80	0,2	22		2/4/42	017426
45	0,1	25			000230
45	0,2	25			000231
45	0,5	25			000232
45	1,0	25			000233
45	2,0	25			000234
45	3,0	25			000235
50	0,1	30			000242
50	0,2	30			000243
50	0,5	30			000244
50	1,0	30			000245
50	2,0	30			000246
50	3,0	30			000247
66	0,1	30			000266
66	0,1	30	8x3,3		176700
66	0,2	30			000267
66	0,2	30	8x3,3		176701
66	0,5	30			000268
66	0,5	30	8x3,3		176702
66	1,0	30			000269
66	1,0	30	8x3,3		176703
66	2,0	30			000270
66	2,0	30	8x3,3		176704
66	3,0	30			000271
66	3,0	30	8x3,3		176705
66	4,0	30			161999
66	4,0	30	8x3,3		176706
66	10	30			162002
66	10	30	8x3,3		176707
90	0,1	30			000308
90	0,2	30			000309
90	0,5	30			000310
90	1,0	30			000311
90	2,0	30			000312
90	3,0	30			000313
100	0,1	30			000320
[mm]	[mm]	[mm]	[mm]		

Ø D	B	Ø d	DKN	NL	Ident-No.
100	0,2	30			000321
100	0,5	30			000322
100	1,0	30			000323
100	2,0	30			000324
100	3,0	30			000325
175	0,1	30			000458
175	0,2	30			000459
175	0,5	30			000460
175	1,0	30			000461
70	0,1	35			000296
70	0,1	35	10x3,3		176436
70	0,2	35			000297
70	0,2	35	10x3,3		176437
70	0,5	35			000298
70	0,5	35	10x3,3		176438
70	1,0	35			000299
70	1,0	35	10x3,3		176439
70	2,0	35			000300
70	2,0	35	10x3,3		176440
70	3,0	35			000301
70	3,0	35	10x3,3		176441
70	4,0	35			162000
70	4,0	35	10x3,3		176442
70	10	35			162003
70	10	35	10x3,3		176443
100	0,1	35			000326
100	0,2	35			000327
100	0,5	35			000328
100	1,0	35			000329
100	2,0	35			000330
100	3,0	35			000331
70	0,1	40			000302
70	0,1	40	12x3,3		176444
70	0,2	40			000303
70	0,2	40	12x3,3		176445
70	0,5	40			000304
70	0,5	40	12x3,3		176446
70	1,0	40			000305
70	1,0	40	12x3,3		176447
70	2,0	40			000306
70	2,0	40	12x3,3		176448
70	3,0	40			000307
70	3,0	40	12x3,3		176449
70	4,0	40			162001
70	4,0	40	12x3,3		176450
70	10	40			162004
70	10	40	12x3,3		176451
120	0,1	40			000344
120	0,2	40			000345
120	0,5	40			000346
120	1,0	40			000347
120	2,0	40			000348
90	0,1	50			000314
90	0,2	50			000315
90	0,5	50			000316
90	1,0	50			000317
90	2,0	50			000318
90	3,0	50			000319
100	0,05	50		4/9/80	177019
100	0,1	50		4/9/80	176835
100	0,2	50		4/9/80	176836
100	0,5	50		4/9/80	176837
100	1,0	50		4/9/80	176838
100	2,0	50		4/9/80	176839
[mm]	[mm]	[mm]	[mm]		





Ø D	B	Ø d	DKN	NL	Ident-No.
100	3,0	50		4/9/80	176840
90	0,05	60		3/9/74	177022
90	0,1	60		3/9/74	177023
90	0,2	60		3/9/74	177024
90	0,5	60		3/9/74	177025
90	1,0	60		3/9/74	177026
90	2,0	60		3/9/74	177027
100	0,1	60			000332
100	0,2	60			000333
100	0,5	60			000334
100	1,0	60			000335
100	2,0	60			000336
100	3,0	60			000337
120	0,1	60		4/9/100	176830
120	0,15	60		4/9/100	177018
120	0,2	60		4/9/100	176831
120	0,5	60		4/9/100	176832
120	1,0	60		4/9/100	176495
120	2,0	60		4/9/100	176833
120	3,0	60		4/9/100	176834
160	0,1	60			000452
160	0,2	60			000453
160	0,5	60			000454
160	1,0	60			000455
160	2,0	60			000456
160	3,0	60			000457
115	1,0	80			009255
120	0,1	80		4/9/100+2/6,5/90	177380
120	0,2	80		4/9/100+2/6,5/90	177381
120	0,5	80		4/9/100+2/6,5/90	177382
120	1,0	80		4/9/100+2/6,5/90	177383
120	2,0	80		4/9/100+2/6,5/90	177384
120	3,0	80		4/9/100+2/6,5/90	177385
130	0,5	80			000450
145	0,1	80		4/12/100+4/9/120	552104
145	0,2	80		4/12/100+4/9/120	552105
145	0,5	80		4/12/100+4/9/120	552106
145	1,0	80		4/12/100+4/9/120	552107
[mm]	[mm]	[mm]	[mm]		

955521

Spacer Sets

Notes

I 9 piece set consists of: 1 piece 0.1 mm, 2 pieces 0.2 mm, 1 piece 0.5 mm, 3 pieces 1.0 mm, 1 piece 4.0 mm, 1 piece 10 mm

Ø D	B	Ø d	Ident-No.
66	18	30	161797
70	18	35	161798
70	18	40	161799
[mm]	[mm]	[mm]	

955521

### Spacer Sets

Notes

| for milling spindles  
 | 8 piece set consists of: 2 pieces 5 mm, 1 piece 8 mm, 1 piece 10 mm, 2 pieces 16 mm, 1 piece 25 mm, 1 piece 40 mm

Ø D	B	Ø d	Ident-No.
50	125	30	160233 o
60	125	40	160234 o
[mm]	[mm]	[mm]	

995520

### Spacers for S-System - Homag

Notes

| for S-System - Homag

Ø D	B	Ø d	DKN	Ident-No.
60	11	35	10x3,3	180647
[mm]	[mm]	[mm]	[mm]	



955530

## Reducing Ring

## Notes

| for reduction of the saw blade bore

| rotation of the clamping flanges must be observed to ensure secure clamping of the tool

Ø D	B	Ø d	Ø d	Ident-No.
20	1,6	12,7	1/2	161946
20	1,6	16		161945
22	2,0	20		161887
22	4,0	20		161830
25	2,2	20		000104
30	1,4	15		000107
30	1,4	16		000111
30	1,4	20		000117
30	1,4	25		000125
30	1,8	15,1	19/32	161949
30	1,9	16		000112
30	1,9	20		000118
30	2,0	20		016848
30	2,0	25		000127
30	2,2	15,88	5/8	000110
30	2,2	16		000113
30	2,2	18		000114
30	2,2	20		000119
30	2,2	22		000120
30	2,2	25		000128
30	2,2	25,4	1	000130
30	2,2	28		000132
30	3,0	25		000129
32	2,0	16		161886
32	2,2	16		000134
32	2,2	20		000135
32	2,2	22		010571
32	2,2	30		000137
35	1,0	30		000145
35	1,4	30		000146
35	1,9	30		000147
35	2,2	20		000138
35	2,2	24		000139
35	2,2	25		000142
35	2,2	28		000144 s
35	2,2	30		000148
35	2,2	32		000150 s
40	2,0	32		161962
40	2,2	20		000151
40	2,2	30		000153
40	2,2	35		000154
45	2,5	30		161831
50	2,2	30		000156
55	2,2	30		000159
60	2,2	30		000161
60	2,2	35		000162
60	2,2	40		000163
60	2,2	50		000164
60	2,8	30		010577
70	2,2	30		000166
80	2,2	30		000171
80	2,2	35		000172
80	2,2	50		000175
80	2,2	60		000177
80	2,2	70		000179
[mm]	[mm]	[mm]	[inch]	

Ø D	B	Ø d	Ø d	Ident-No.
80	2,8	60		000178
[mm]	[mm]	[mm]	[inch]	

956506

## Reducing Bushing

### Notes

- | cylindrical
- | bore tolerance H7

Ø D	B	Ø d	Ø d	Ident-No.
30	5,1 - 10		1	000416 o
30	5,1 - 10	20		000411 s
30	5,1 - 10	25		000415 &
30	10,1 - 25		1	000446 o
30	10,1 - 25	20		000441 o
30	10,1 - 25	25		000445 &
30	15,1 - 20		1	000726 &
30	15,1 - 20	20		000721 o
30	15,1 - 20	25		000725 &
30	20,1 - 25		1	000756 o
30	20,1 - 25	20		000751 o
30	20,1 - 25	25		000755 &
40	20,1 - 25	20		000768 o
30	25,1 - 30	20		000781 o
30	25,1 - 30	25		000785 &
30	30,1 - 40		1	000816 &
30	30,1 - 40	20		000811 &
30	30,1 - 40	25		000815 &
30	40,1 - 50		1	000846 &
30	40,1 - 50	20		000841 o
30	40,1 - 50	25		000845 o
30	50,1 - 60		1	000876 o
30	50,1 - 60	20		000871 o
30	50,1 - 60	25		000875 &
30	60,1 - 80		1	000365
30	60,1 - 80	20		000360
30	60,1 - 80	25		000364
35	5,1 - 10		1 1/4	000425 o
35	5,1 - 10	20		000420 &
35	5,1 - 10	30		000424 &
35	10,1 - 25		1 1/4	000705 o
35	10,1 - 25	20		000700 o
35	10,1 - 25	30		000704 &
35	15,1 - 20		1 1/4	000735 &
35	15,1 - 20	20		000730 o
35	15,1 - 20	30		000734 &
35	20,1 - 25		1 1/4	000765 &
35	20,1 - 25	20		000760 o
35	20,1 - 25	30		000764 &
35	25,1 - 30		1 1/4	000795 o
35	25,1 - 30	20		000790 o
35	25,1 - 30	30		000794 &
35	30,1 - 40		1 1/4	000825 &
35	30,1 - 40	20		000820 o
35	30,1 - 40	30		000824
35	40,1 - 50		1 1/4	000855 o
35	40,1 - 50	20		000850 o
35	40,1 - 50	30		000854 &
35	50,1 - 60		1 1/4	000885 &
35	50,1 - 60	20		000880 o
35	50,1 - 60	30		000884 &
[mm]	[mm]	[mm]	[inch]	



Ø D	B	Ø d	Ø d	Ident-No.
35	60,1 - 80		1 1/4	000374
35	60,1 - 80	20		000369
35	60,1 - 80	30		000373
40	5,1 - 10	20		000428 &
40	5,1 - 10	25		000429 &
40	5,1 - 10	30		000430 &
40	5,1 - 10	35		000891 &
40	10,1 - 25	20		000708 &
40	10,1 - 25	25		000709 o
40	10,1 - 25	30		000710 &
40	10,1 - 25	35		000912 &
40	15,1 - 20	20		000738 o
40	15,1 - 20	25		000739 o
40	15,1 - 20	30		000740 &
40	15,1 - 20	35		000933 &
30	25,1 - 30		1	000786 &
40	20,1 - 25	25		000769 &
40	20,1 - 25	30		000770 &
40	20,1 - 25	35		000954 o
40	25,1 - 30	20		000798 o
40	25,1 - 30	25		000799 o
40	25,1 - 30	30		000800 &
40	25,1 - 30	35		000975 o
40	30,1 - 40	20		000828 &
40	30,1 - 40	25		000829 &
40	30,1 - 40	30		000830 &
40	30,1 - 40	35		000996 &
40	40,1 - 50	20		000858 o
40	40,1 - 50	25		000859 o
40	40,1 - 50	30		000860 &
40	40,1 - 50	35		001017 &
40	50,1 - 60	20		000888 o
40	50,1 - 60	25		000889 o
40	50,1 - 60	30		000890 &
40	50,1 - 60	35		001038 &
40	60,1 - 80	20		000377
40	60,1 - 80	25		000378
40	60,1 - 80	30		000379
40	60,1 - 80	35		000380
60	5,1 - 10	30		000899 &
60	5,1 - 10	35		000900 &
60	5,1 - 10	40		000901 &
60	10,1 - 25	30		000920 &
60	10,1 - 25	35		000921 &
60	10,1 - 25	40		000922 &
60	15,1 - 20	30		000941 &
60	15,1 - 20	35		000942 &
60	15,1 - 20	40		000943 &
60	20,1 - 25	30		000962 &
60	20,1 - 25	35		000963 &
60	20,1 - 25	40		000964 o
60	25,1 - 30	30		000983 &
60	25,1 - 30	35		000984 &
60	25,1 - 30	40		000985 &
60	30,1 - 40	30		001004 &
60	30,1 - 40	35		001005 &
60	30,1 - 40	40		001006 &
60	40,1 - 50	30		001025 &
60	40,1 - 50	35		001026 &
60	40,1 - 50	40		001027 &
60	50,1 - 60	30		001046 o
60	50,1 - 60	35		001047 &
60	50,1 - 60	40		001048 &
[mm]	[mm]	[mm]	[inch]	

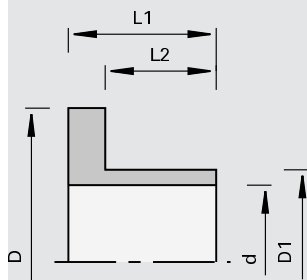
$\varnothing D$	B	$\varnothing d$	$\varnothing d$	Ident-No.
60	60,1 - 80	30		000388
60	60,1 - 80	35		000389
60	60,1 - 80	40		000390
80	5,1 - 10	30		000905 &
80	10,1 - 25	40		000928 &
80	15,1 - 20	30		000947 &
80	15,1 - 20	35		000948 &
80	15,1 - 20	40		000949 &
80	20,1 - 25	30		000968 o
80	20,1 - 25	35		000969 &
80	20,1 - 25	40		000970 &
80	25,1 - 30	30		000989 &
80	25,1 - 30	35		000990 &
80	25,1 - 30	40		000991 o
80	30,1 - 40	30		001010 o
80	30,1 - 40	35		001011 &
80	30,1 - 40	40		001012 &
80	40,1 - 50	30		001031 &
80	40,1 - 50	35		001032 &
80	40,1 - 50	40		001033 &
80	50,1 - 60	30		001052 o
80	50,1 - 60	35		001053 &
80	50,1 - 60	40		001054 o
80	60,1 - 80	30		000394
80	60,1 - 80	35		000395
80	60,1 - 80	40		000396
80	10,1 - 25	30		000926 &
80	10,1 - 25	35		000927 &
80	5,1 - 10	35		000906 &
80	5,1 - 10	40		000907 &
[mm]	[mm]	[mm]	[inch]	

956506

Reducing Bushings

drawing

Notes



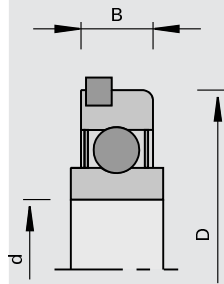
I with collar

$\varnothing D$	$\varnothing D1$	$\varnothing d$	L1	L2	Ident-No.
60	40	30	24	18	168063
[mm]	[mm]	[mm]	[mm]	[mm]	

997500

## Ball Bearing Bushings

drawing



Notes

- | for use with ball bearing rub collar
- | bearing cage sealed against dust
- | stop collar for ball bearing ring

$\varnothing D$	B	$\varnothing d$	Ident-No.
62	16	30	003578
72	20	40	160203 o
[mm]	[mm]	[mm]	

997500

## Ball Bearings

Notes

Notes

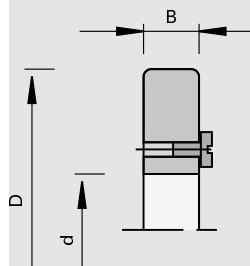
- | for shank-type tools

	Dimension	Ident-No.
ball-bearing thrust ring assy.	$\varnothing 12$	167923
ball-bearing thrust ring assy.	$\varnothing 14$	169314
Ball Bearings	12,7x5x4,76	164920
Ball Bearings	13x5x6	170265 o
Ball Bearings	15,9x5x6,35	164921
Ball Bearings	19x6x6	164922
Ball Bearings	22x7,5x8	180838
ball-bearings with thrust ring	19x7,5x6,35	164229
ball-bearings with thrust ring	21x7,5x6,35	170774 o
ball-bearings with thrust ring	22x7,5x6,35	164228
	[mm]	

955550

## Rub Collars

drawing



Notes

- | for use on ball bearing bushing
- | intermediate dimensions available upon request
- | screw for axial locking: cap screw M4x10 DIN 84 Ident-No. 001730

$\varnothing D$	B	$\varnothing d$	Ident-No.
75	10	62	160205
80	10	62	160206
85	10	62	160207
90	10	62	160208
95	10	62	160209 o
100	10	62	160210
105	10	62	160211
110	10	62	160212
115	10	62	160213 o
120	10	62	160214
125	10	62	056840
130	10	62	160215 o
135	10	62	160216 o
140	10	62	160217 o
145	10	62	160218 o
150	10	62	160219
[mm]	[mm]	[mm]	





985720

## Engineers Wrenches

Dimension	Ident-No.
9x11 DIN 3118	168672 o
11x13 DIN 3118	168670 o
14x17 DIN 3118	168671
[mm]	

985720

## Engineers Wrenches

Dimension	Ident-No.
SW10/13 DIN 895	171060 o
[mm]	

985720

## Single-Head Engineers Wrenches

Dimension	Ident-No.
SW36 DIN 894	169296 o
SW41 DIN 894	169297
SW46x10 DIN 894	178760
[mm]	

985720

## Hook Wrenches

Notes  
| for draw-in collet chucks

Dimension	Ident-No.
SW40/42 DIN 1810	169298
SW45/50 DIN 1810	175851
SW58/62 DIN 1810	169299
[mm]	

985730

## Cranked Wrench Keys

Notes  
| for hexagon socket screws

Dimension	Ident-No.
SW2 DIN ISO 2936	009670
SW2,5 DIN ISO 2936	009671
SW3 DIN ISO 2936	009672
SW4 DIN ISO 2936	009673
SW5 DIN ISO 2936	009674
SW6 DIN ISO 2936	009675
SW8 DIN ISO 2936	009677
[mm]	

985730

**Screwdrivers**

## Notes

- | for hexagon socket screws
- | with sliding handle

Dimension	Ident-No.
SW2,5x100	168010
SW3x100	166090
SW4x100	166091
SW5x150	168703
SW6x200	167817
[mm]	

985730

**Screwdrivers**

## Notes

- | for screws with Torx
- | with sliding handle

Dimension	Ident-No.
T20x100	166092
T40x130	831404 o
[mm]	

985730

**Screwdrivers**

## Notes

- | for screws with Torx
- | with flag

Dimension	Ident-No.
T7	167904
T8	166499
T9	164344
T15	163161
[mm]	

985730

**Cranked Wrench Keys**

## Notes

- | for screws with Torx
- | for adjustment unit Altendorf

Dimension	Ident-No.
T15	181147
[mm]	



985730

## Screwdrivers

Notes

| for screws with Torx  
| with spinner handle

Dimension

Ident-No.

T9x60		173796
T15x80		171188
T15x140		179145
[mm]		

985730

## Screwdrivers

Notes

Notes

| with spinner handle

Dimension

Ident-No.

8	for spurs	053874
[mm]		

985730

## Screwdrivers

Notes

Notes

| with wooden handle

Dimension

Ident-No.

9,0	for hoggers	011088
[mm]		

985200

## Adjusting Gauges

Dimension

Ident-No.

0,3		055883
0,7		056096
1,0		011103
[mm]		

997800

## Magnetic Stops

Dimension

Ident-No.

0,0		016613
0,5		166093
1,0		166094
	two-piece for glue-joint cutterhead	168152
[mm]		