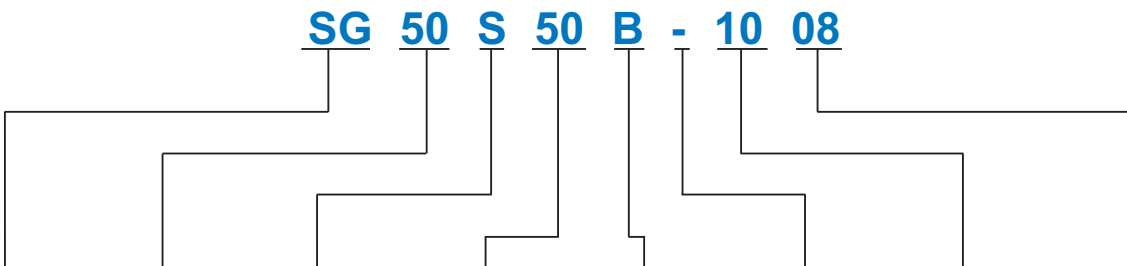


Precision ground gears, ideal for high speed mechatronic applications where higher loads and accurate motion are required.

4

SG 50 S 50 B - 10 08



Gear Type	Module	Material	Number of Teeth	Shaft Type	Bores Types*	Facewidth	Bore Diameter
Ground Spur Gear	0.5 0.8 1.0	Chromium Molybdenum Steel 49-55HRC	14 - 120	L = solid shaft on both sides B = Bore with hub on one side	-: Ground bore without threaded hole +: Ground bore with threaded hole and tap guide, set screw not supplied	8 10	5 6 8 10 12

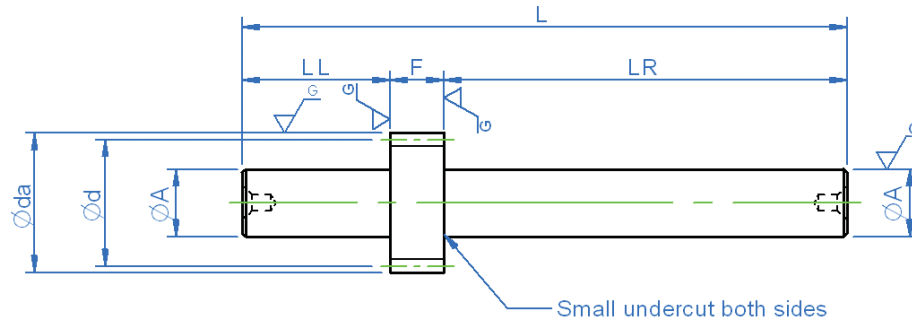
* See bore type designator in part number, - or +

Ground spur gears

- Modules 0.5 to 1.0 available.
- Manufactured from chromium molybdenum steel, hardened to 49-55HRC.
- Standard gear accuracy : ISO 5
- Bore diameter, outside diameter and other surfaces are ground to provide location datums when additional machining is required. Additional machining of the bore is not recommended.

Associated Online Products
Bearings

All dimensions in mm
Pressure angle 20°



Part number selection table

4

Part Number	Module	Number of Teeth	PCD Ød	OD Øda	Face Width F	Shaft Dia (h7) ØA	Shaft Length LL	Shaft Length LR	Overall Length L
SG50S20L-0806	0.5	20	10.0	11.0	8	6	22	50	80
SG50S22L-0808		22	11.0	12.0		8			
SG50S24L-0810		24	12.0	13.0		10			
SG50S25L-0810		25	12.5	13.5		10			
SG50S26L-0810		26	13.0	14.0		10			
SG80S15L-0806	0.8	15	12.0	13.6	8	6	22	60	90
SG80S16L-0806		16	12.8	14.4		6			
SG80S18L-0808		18	14.4	16.0		8			
SG80S20L-0810		20	16.0	17.6		10			
SG80S24L-0810		24	19.2	20.8		10			
SG80S25L-0810		25	20.0	21.6		10			
SG1S14L-1008	1.0	14	14	16.0	10	8	25	60	95
SG1S15L-1010		15	15	17.0		10			
SG1S16L-1010		16	16	18.0		10			
SG1S18L-1010		18	18	20.0		10			

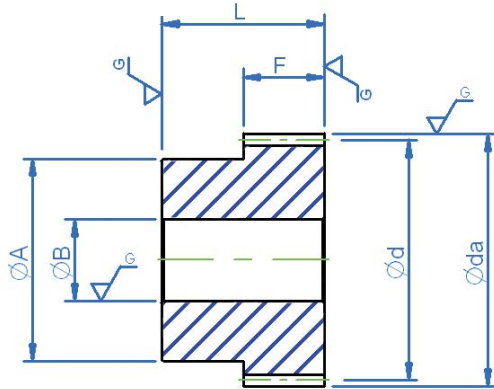
- Material : Chromium molybdenum steel (ISO 34CrMo4, 42CrMo4)
- Gear tooth treatment : Induction hardened to 49-55HRC
- Accuracy : ISO 5
- Gear tooth surface finish $\sqrt{1.6}$
- For transmission capacity - see [page 118](#)

Small quantities of selected items available ex-stock, please visit our online store
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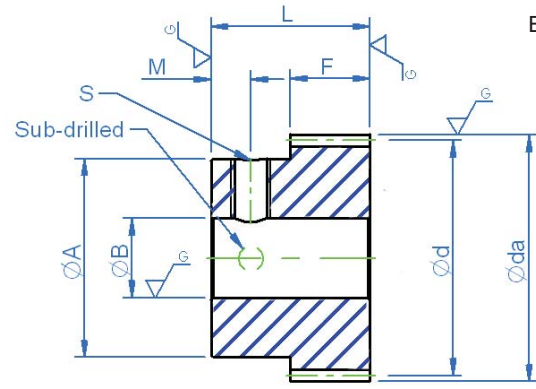
All dimensions in mm
Pressure angle 20°

Associated Online Products

Set screws
Shafts
Bearings



- in part number denotes less threaded hole



+ in part number denotes threaded hole (set screw not supplied)

4

Part number selection table

Part Number	Number of Teeth	PCD Ød	OD Øda	Bore Dia (H7) ØB	Hub Dia ØA	Face Width F	Overall Length L	Set Screw		Sub-drilled Ø
								S	M	
SG50S28B-0805	28	14.0	15.0	5	10			-	-	-
SG50S30B-0805	30	15.0	16.0	5	12			-	-	-
SG50S30B-0806	30	15.0	16.0	6	12			-	-	-
SG50S30B+0806	30	15.0	16.0	6	12			M3	4	2.5
SG50S32B-0805	32	16.0	17.0	5	12			-	-	-
SG50S32B-0806	32	16.0	17.0	6	12			-	-	-
SG50S35B-0805	35	17.5	18.5	5	14			-	-	-
SG50S36B-0806	36	18.0	19.0	6	16			-	-	-
SG50S36B-0808	36	18.0	19.0	8	16			-	-	-
SG50S40B-0806	40	20.0	21.0	6	16	8	16	-	-	-
SG50S40B-0808	40	20.0	21.0	8	16			-	-	-
SG50S40B+0808	40	20.0	21.0	8	16			M4	4	3.3
SG50S45B-0808	45	22.5	23.5	8	16			-	-	-
SG50S48B-0808	48	24.0	25.0	8	20			-	-	-
SG50S50B-0808	50	25.0	26.0	8	20			-	-	-
SG50S50B-0810	50	25.0	26.0	10	20			-	-	-
SG50S50B+0810	50	25.0	26.0	10	20			M4	4	3.3
SG50S54B-0808	54	27.0	28.0	8	20			-	-	-
SG50S55B-0808	55	27.5	28.5	8	20			-	-	-

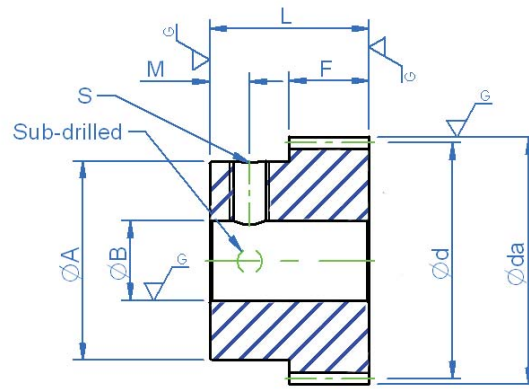
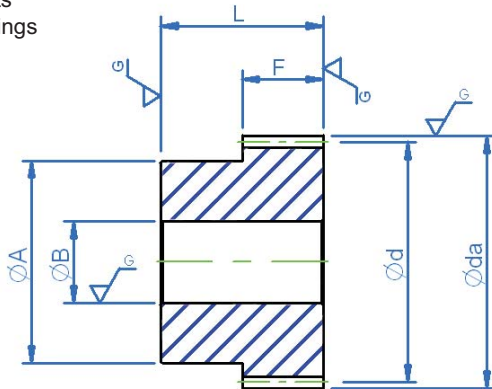
- Material : Chromium molybdenum steel (ISO 34CrMo4, 42CrMo4)
- Gear tooth treatment : Induction hardened to 49-55HRc
- Gear accuracy : ISO 5
- Gear tooth surface finish $\sqrt[16]{}$
- For transmission capacity - see [page 118](#)
- Standard keyway features available see [page 69](#)

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Associated Online Products

Set screws
Shafts
Bearings

All dimensions in mm
Pressure angle 20°



- in part number denotes less threaded hole

+ in part number denotes threaded hole (set screw not supplied)

Part number selection table

4

Part Number	Number of Teeth	PCD Ød	OD Øda	Bore Dia (H7) ØB	Hub Dia ØA	Face Width F	Overall Length L	Set Screw		Sub-drilled Ø
								S	M	
SG50S56B-0808	56	28.0	29.0	8	20			-	-	-
SG50S60B-0808	60	30.0	31.0	8	22			-	-	-
SG50S60B-0810	60	30.0	31.0	10	22			-	-	-
SG50S60B+0810	60	30.0	31.0	10	22			M4	4	3.3
SG50S64B-0808	64	32.0	33.0	8	22			-	-	-
SG50S70B-0808	70	35.0	36.0	8	22			-	-	-
SG50S72B-0808	72	36.0	37.0	8	25			-	-	-
SG50S75B-0808	75	37.5	38.5	8	25			-	-	-
SG50S80B-0808	80	40.0	41.0	8	25			-	-	-
SG50S80B-0810	80	40.0	41.0	10	25	8	16	-	-	-
SG50S80B-0812	80	40.0	41.0	12	25			-	-	-
SG50S80B+0812	80	40.0	41.0	12	25			M5	4	4.2
SG50S90B-0810	90	45.0	46.0	10	30			-	-	-
SG50S96B-0810	96	48.0	49.0	10	30			-	-	-
SG50S100B-0810	100	50.0	51.0	10	30			-	-	-
SG50S100B-0812	100	50.0	51.0	12	30			-	-	-
SG50S100B+0812	100	50.0	51.0	12	30			M5	4	4.2
SG50S108B-0810	108	54.0	55.0	10	35			-	-	-
SG50S112B-0810	112	56.0	57.0	10	35			-	-	-
SG50S120B-0810	120	60.0	61.0	10	35			-	-	-

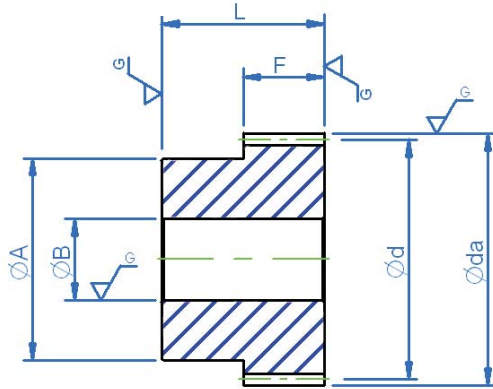
- Material : Chromium molybdenum steel (ISO 34CrMo4, 42CrMo4)
- Gear tooth treatment : Induction hardened to 49-55HRc
- Gear accuracy : ISO 5
- Gear tooth surface finish $\sqrt{1.6}$
- For transmission capacity - see [page 118](#)
- Standard keyway features available see [page 69](#)

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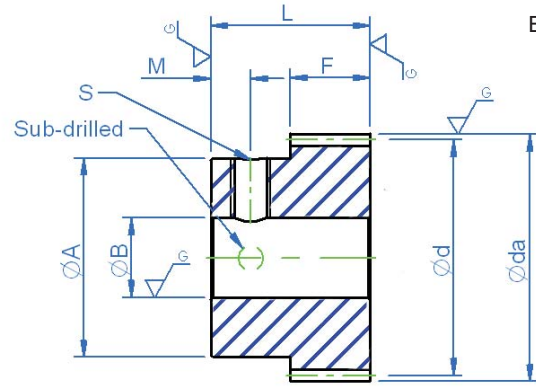
All dimensions in mm
Pressure angle 20°

Associated Online Products

Set screws
Shafts
Bearings



- in part number denotes less threaded hole



+ in part number denotes threaded hole (set screw not supplied)

4

Part number selection table

Part Number	Number of Teeth	PCD Ød	OD Øda	Bore Dia (H7) ØB	Hub Dia ØA	Face Width F	Overall Length L	Set Screw		Sub-drilled Ø
								S	M	
SG80S22B-0806	22	17.6	19.2	6	14			-	-	-
SG80S24B-0806	24	19.2	20.8	6	16			-	-	-
SG80S25B-0806	25	20.0	21.6	6	16			-	-	-
SG80S28B-0808	28	22.4	24.0	8	18			-	-	-
SG80S30B-0810	30	24.0	25.6	10	20			-	-	-
SG80S30B+0810	30	24.0	25.6	10	20			M4	5	3.3
SG80S32B-0810	32	25.6	27.2	10	20			-	-	-
SG80S35B-0810	35	28.0	29.6	10	20			-	-	-
SG80S36B-0810	36	28.8	30.4	10	20	8	18	-	-	-
SG80S40B-0810	40	32.0	33.6	10	25			-	-	-
SG80S40B+0812	40	32.0	33.6	12	25			M5	5	4.2
SG80S45B-0810	45	36.0	37.6	10	25			-	-	-
SG80S48B-0810	48	38.4	40.0	10	25			-	-	-
SG80S50B-0810	50	40.0	41.6	10	25			-	-	-
SG80S50B+0812	50	40.0	41.6	12	25			M5	5	4.2
SG80S54B-0810	54	43.2	44.8	10	25			-	-	-
SG80S55B-0810	55	44.0	45.6	10	25			-	-	-

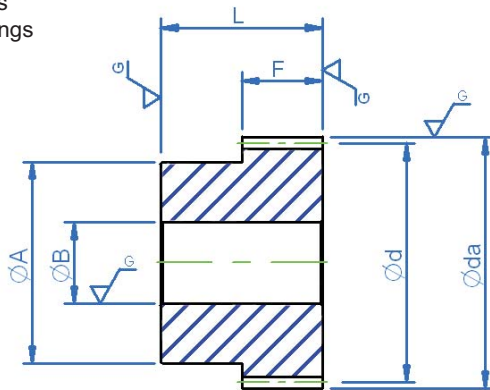
- Material : Chromium molybdenum steel (ISO 34CrMo4, 42CrMo4)
- Gear tooth treatment : Induction hardened to 49-55HRc
- Gear accuracy : ISO 5
- Gear tooth surface finish $\sqrt{1.6}$
- For transmission capacity - see [page 118](#)
- Standard keyway features available see [page 69](#)

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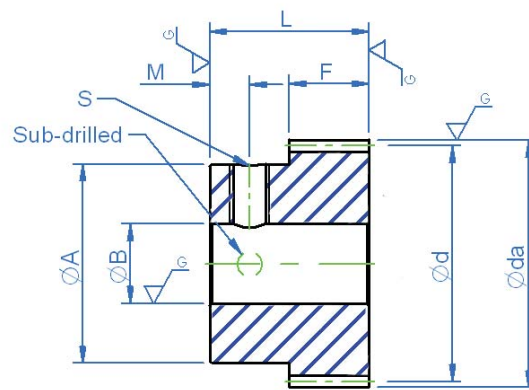
Associated Online Products

Set screws
Shafts
Bearings

All dimensions in mm
Pressure angle 20°



- in part number denotes less threaded hole



+ in part number denotes threaded hole (set screw not supplied)

Part number selection table

Part Number	Number of Teeth	PCD Ød	OD Øda	Bore Dia (H7) ØB	Hub Dia ØA	Face Width F	Overall Length L	Set Screw		Sub-drilled Ø
								S	M	
SG80S56B-0810	56	44.8	46.4	10	25	8	18	-	-	-
SG80S60B-0810	60	48.0	49.6	10	25			-	-	-
SG80S60B+0812	60	48.0	49.6	12	25			M5	5	4.2
SG80S64B-0812	64	51.2	52.8	12	30			-	-	-
SG80S70B-0812	70	56.0	57.6	12	30			-	-	-
SG80S72B-0812	72	57.6	59.2	12	30			-	-	-
SG80S75B-0812	75	60.0	61.6	12	30			-	-	-
SG80S80B-0812	80	64.0	65.6	12	30			-	-	-
SG80S90B-0812	90	72.0	73.6	12	35			-	-	-
SG80S96B-0812	96	76.8	78.4	12	35			-	-	-
SG80S100B-0812	100	80.0	81.6	12	35			-	-	-
SG80S108B-0812	108	86.4	88.0	12	40			-	-	-
SG80S112B-0812	112	89.6	91.2	12	40			-	-	-
SG80S120B-0812	120	96.0	97.6	12	40			-	-	-

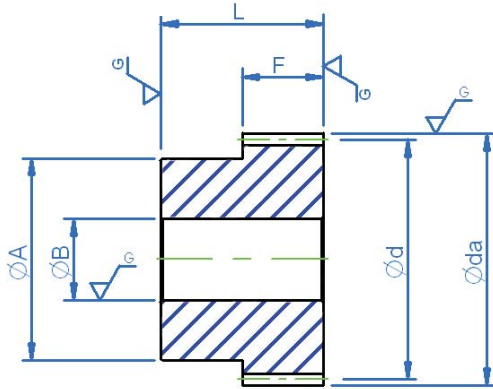
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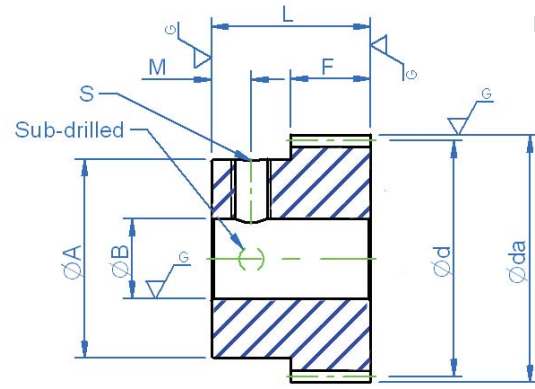
All dimensions in mm
Pressure angle 20°

Associated Online Products

Set screws
Shafts
Bearings



- in part number denotes less threaded hole



+ in part number denotes threaded hole (set screw not supplied)

4

Part number selection table

Part Number	Number of Teeth	PCD Ød	OD Øda	Bore Dia (H7) ØB	Hub Dia ØA	Face Width F	Overall Length L	Set Screw		Sub-drilled Ø
								S	M	
SG1S17B-1006	17	17.0	19.0	6	12			-	-	-
SG1S18B-1008	18	18.0	20.0	8	15			-	-	-
SG1S20B-1008	20	20.0	22.0	8	16			-	-	-
SG1S20B+1008	20	20.0	22.0	8	16			M4	5	3.3
SG1S20B+1010	20	20.0	22.0	10	16			M4	5	3.3
SG1S21B-1008	21	21.0	23.0	8	16			-	-	-
SG1S22B-1008	22	22.0	24.0	8	18			-	-	-
SG1S23B-1008	23	23.0	25.0	8	18			-	-	-
SG1S24B-1008	24	24.0	26.0	8	20	10	20	-	-	-
SG1S24B+1008	24	24.0	26.0	8	20			M4	5	3.3
SG1S24B+1010	24	24.0	26.0	10	20			M4	5	3.3
SG1S25B-1008	25	25.0	27.0	8	20			-	-	-
SG1S26B-1008	26	26.0	28.0	8	20			-	-	-
SG1S27B-1008	27	27.0	29.0	8	20			-	-	-
SG1S28B-1008	28	28.0	30.0	8	20			-	-	-
SG1S30B-1010	30	30.0	32.0	10	26			-	-	-
SG1S30B+1010	30	30.0	32.0	10	26			M4	5	3.3

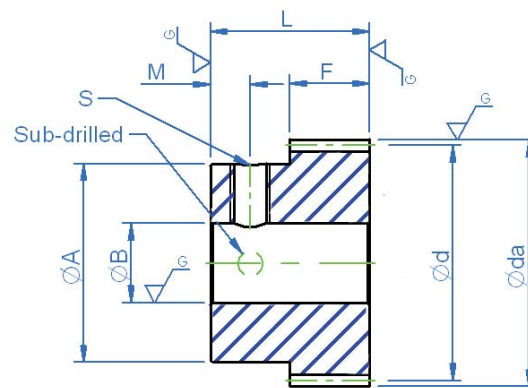
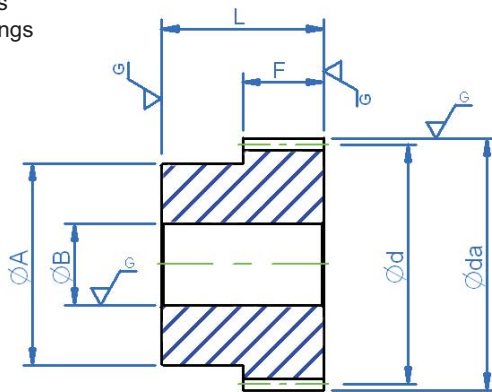
- Material : Chromium molybdenum steel (ISO 34CrMo4, 42CrMo4)
- Gear tooth treatment : Induction hardened to 49-55HRC
- Gear accuracy : ISO 5
- Gear tooth surface finish $\sqrt[16]{}$
- For transmission capacity - see [page 118](#)
- Standard keyway features available see [page 69](#)

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Associated Online Products

Set screws
Shafts
Bearings

All dimensions in mm
Pressure angle 20°



- in part number denotes less threaded hole

+ in part number denotes threaded hole (set screw not supplied)

Part number selection table

4

Part Number	Number of Teeth	PCD Ød	OD Øda	Bore Dia (H7) ØB	Hub Dia ØA	Face Width F	Overall Length L	Set Screw		Sub-drilled Ø
								S	M	
SG1S30B+1012	30	30.0	32.0	12	26	10	20	M4	5	3.3
SG1S32B-1010	32	32.0	34.0	10	26			-	-	-
SG1S34B-1010	34	34.0	36.0	10	26			-	-	-
SG1S35B-1010	35	35.0	37.0	10	26			-	-	-
SG1S36B-1010	36	36.0	38.0	10	26			-	-	-
SG1S38B-1010	38	38.0	40.0	10	26			-	-	-
SG1S40B-1010	40	40.0	42.0	10	26			-	-	-
SG1S40B-1012	40	40.0	42.0	12	26			-	-	-
SG1S42B-1010	42	42.0	44.0	10	35			-	-	-
SG1S44B-1010	44	44.0	46.0	10	35			-	-	-
SG1S45B-1012	45	45.0	47.0	12	35			-	-	-
SG1S48B-1012	48	48.0	50.0	12	35			-	-	-
SG1S50B-1012	50	50.0	52.0	12	35			-	-	-

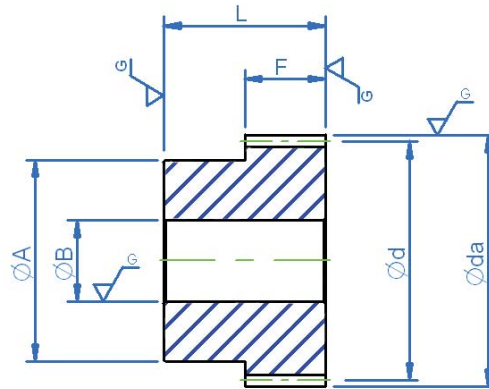
- Material : Chromium molybdenum steel (ISO 34CrMo4, 42CrMo4)
- Gear tooth treatment : Induction hardened to 49-55HRc
- Gear accuracy : ISO 5
- Gear tooth surface finish $\sqrt{16}$
- For transmission capacity - see [page 118](#)
- Standard keyway features available see [page 69](#)

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All dimensions in mm
Pressure angle 20°

Associated Online Products

Set screws
Shafts
Bearings



- in part number denotes less threaded hole

Part number selection table

4

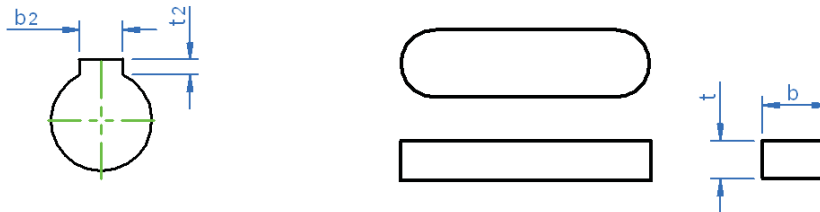
Part Number	Number of Teeth	PCD Ød	OD Øda	Bore Dia (H7) ØB	Hub Dia ØA	Face Width F	Overall Length L
SG1S52B-1012	52	52.0	54.0	12	35	10	20
SG1S54B-1012	54	54.0	56.0				
SG1S55B-1012	55	55.0	57.0				
SG1S56B-1012	56	56.0	58.0				
SG1S60B-1012	60	60.0	62.0				
SG1S64B-1012	64	64.0	66.0				
SG1S70B-1012	70	70.0	72.0				
SG1S72B-1012	72	72.0	74.0				
SG1S75B-1012	75	75.0	77.0				
SG1S80B-1012	80	80.0	82.0				
SG1S100B-1012	100	100.0	102.0				

- Material : Chromium molybdenum steel (ISO 34CrMo4, 42CrMo4)
- Gear tooth treatment : Induction hardened to 49-55HRc
- Gear accuracy : ISO 5
- Gear tooth surface finish $\sqrt[1.6]{}$
- For transmission capacity - see [page 118](#)
- Standard keyway features available see [page 69](#)

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Associated Online Products
Ground pin hub spur gears

All dimensions in mm
Pressure angle 20°



Tolerances for key

b x t	3 x 3	4 x 4
b Tolerance (h)	h9	h9
t Tolerance (h)	h9	h9

4

Keyway information

Dimensions Ø	Bore Dia Ø	Keyway b ₂ x t ₂	Width		Depth	
			b ₂	Tolerance Js 9	t ₂	Tolerance
8 - 10	8	3 x 1.4	3	±0.0125	1.4	+0.1 -0
	10					
10 - 12	12	4 x 1.8	4	±0.015	1.8	