

## GEARS

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**Spur Gears**



**Bevel Gears**



**Miter Gears**



**Worm and Worm Gears**



**Gear Rack**



# Stock Gears Numbering System

Letters (Prefix) Indicate Material and Type Gear.  
Letters (Suffix) Indicate Hardened, Number of Threads, Direction of Rotation and KW and SS.  
Numbers Indicate Pitch, Number of Teeth, and Ratio (Suffix).



## Spur Gears

S=Steel  
TS=Steel 20°  
C=Cast  
TC=Cast 20°  
H=Hardened Teeth  
NM=Non-Metallic  
Note: Pressure Angle is Shown as a Suffix to Part Number of All Our Spur Gears.

## Examples

S620-14½° (Steel 6P 20T-14½°PA)  
TS620-20° (Steel 6P 20T-20°PA)  
C660-14½° (Cast 6P 60T-14½°PA)  
TC660-20° (Cast 6P 60T-20°PA)  
S620H-14½° (Steel 6P 20T-Hardened 14½°PA)  
NM620-14½° (Non-Metallic 6P 20T-14½°PA)



## Rack

R=Rack — Steel  
RA=Rack — Steel Heavy Backing  
TR=Rack — Steel 20° Heavy Backing  
R20=Rack — Steel 20° Wide Face

## Examples

R-6X2 (14½° STD Backing 6PX2' Long)  
RA-6X4 (14½° Heavy Backing 6PX4' Long)  
TR-6X6 (20° STD Width 6PX6' Long)  
R20-6X6 (20° Wide Face 6PX6' Long)



## Bevel Gears

B=Bevel — Cast Iron Gears  
B=Bevel — Steel Pinions  
BS=Bevel — Steel Gears  
BS=Bevel — Steel Pinions  
Note: B Steel Pinions May Run With BS Gears of Same Ratio

## Examples

B1040-2 (Cast 10P 40T 2:1 Ratio)  
B1020-2 (Steel 10P 20T 2:1 Ratio)  
BS1040-2 (Steel 10P 40T 2:1 Ratio)  
BS1020-2 (Steel 10P 20T 2:1 Ratio)



## Miter Gears

M=Miter — Steel Gears  
A or B=Larger Bore (Suffix)  
HM=Miter-Hardened Teeth  
K=KW & SS

## Examples

M824 (Steel 8P 24T)  
M824A (Steel 8P 24T Larger Bore)  
M2424BR (Brass 24P 24T)  
HM1020 (Steel-Hardened Teeth 10P 20T)  
HMK1020 (Steel-Hardened 10P 20T With KW & SS)



## Worm

W=Worm — Steel  
WH=Worm — Steel With Hub Projection  
WG=Worm — Steel Hardened Ground Threads  
WHG=Worm — Steel Hardened Ground Threads With Hub Projection  
L=(Prefix) Longer Face  
D or Q=(Suffix) Double or Quadruple Thread  
R=Right Hand

## Examples

W6R (Steel 6P Right Hand)  
WH6R (Steel with Hub Projection 6P Right Hand)  
WG6R (Steel-Hardened Ground Threads 6P Right Hand)  
WHG6R (Steel with Hub Projection Hardened Ground Threads 6P Right Hand)  
LW6R Steel Long Face 6P Right Hand  
W6DR (Steel 6P Double Thread Right Hand)



## Worm Gears

W=Worm Gear — Cast Iron  
WB=Worm Gear — Bronze  
D or Q=Double or Quadruple Thread (Suffix)  
R=Right Hand (Suffix)

## Examples

W660R (Cast Iron 6P 60T Right Hand)  
WB660R (Bronze 6P 60T Right Hand)  
W660DR (Cast Iron 6P 60T Double Thread Right Hand)

*Martin* Stock Spur Gears are available in five different styles. Steel Gears are furnished in plain style and plain style with hub. Cast gears are furnished, plain with hub, web with lightening holes, and spoke. Cast gears are machined on all operating surfaces. *Martin* cast gears are cast with larger hub to provide extra strength and to allow for larger bores.



### Type A

- Plain Without Hubs
- All Steel



### Type B<sub>1</sub>

- Web
- All Steel
- Cast



### Type B

- Plain With Hubs
- All Steel
- Cast



### Type B<sub>2</sub>

- Web With Lighten Holes
- All Steel
- Cast



### Type B<sub>3</sub>

- Web With Spokes
- Cast

# 3 DP 3" Face

# Steel Stock Spur Gears 14½° Pressure Angle

# Martin



**Type A**  
Plain Without Hub



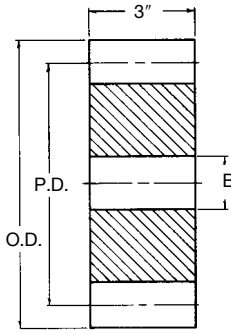
**Type B**  
Plain With Hub



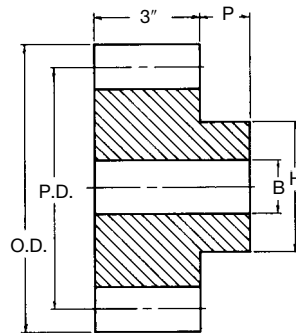
**Type B<sub>1</sub>**  
Web



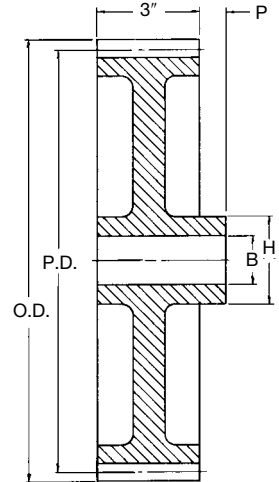
**Type B<sub>2</sub>**  
Web With  
Lighten Holes



**Type A**



**Type B**



**Type B<sub>1</sub>, B<sub>2</sub>**

## Steel

No. Teeth	Catalog Number	Pressure Angle (Deg.)	Diameter		Type	Bore (Inches)		Hub (Inches)		Weight Lbs. (App.)
			Pitch	Outside		Stock	Max. *	Diameter	Proj.	
11	S311	14½	4.000†	4.666	A	1⅞	2			12.0
12	S312	14½	4.000‡	4.666	A	1⅞	2			11.0
13	S313	14½	4.333	5.000	A	1⅞	2¼			10.7
14	S314	14½	4.667	5.333	A	1⅞	2½			12.8
15	S315	14½	5.000	5.666	A	1⅞	2¾			14.8
16	S316	14½	5.333	6.000	A	1⅞	2⅞			17.0
18	S318	14½	6.000	6.666	A	1⅞	3¼			22.0
20	S320	14½	6.667	7.333	A	1⅞	3½			27.4
21	S321	14½	7.000	7.666	A	1⅞	3¾			30.7
24	S324	14½	8.000	8.666	B	1⅞	3	5½	1¼	48.2
30	S330	14½	10.000	10.666	B	1⅞	3¾	6	1¼	74.5
36	S336	14½	12.000	12.666	B	1⅞	4¼	6½	1¼	114
42	S342	14½	14.000	14.666	B1	1⅞	4½	6½	1¼	106
48	S348	14½	16.000	16.666	B1	1⅞	4¾	6½	1¼	120
54	S354	14½	18.000	18.666	B2	1⅞	4¾	6½	1¼	134
60	S360	14½	20.000	20.666	B2	1⅞	4¾	6½	1¼	150
72	S372	14½	24.000	24.666	B2	1⅞	4½	7	1¼	180
84	S384	14½	28.000	28.666	B2	1⅞	4½	7	1¼	215
96	S396	14½	32.000	32.666	B2	1⅞	4½	7	1¼	264
108	S3108	14½	36.000	36.666	B2	1⅞	4½	7	1¼	305
120	S3120	14½	40.000	40.666	B2	1⅞	5	7½	1¼	367

\* Recommended Maximum Bore With Keyway and Setscrew.

† Enlarged Pitch Diameter with Special Tooth Form.

‡ 4" Face.

**14½ P.A. Gears Will Not Operate With 20° P.A.**

# Martin

## Cast Iron Stock Spur Gears

14½° Pressure Angle

# 3 DP 3" Face



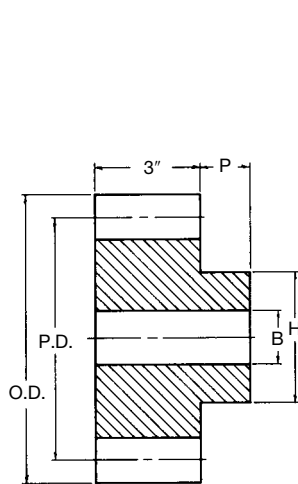
**Type B**  
Plain With Hub



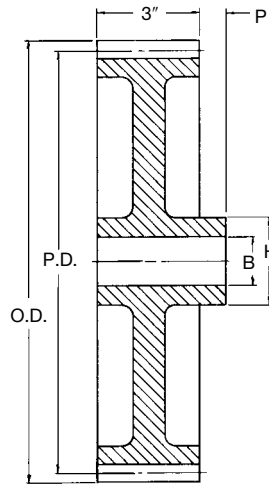
**Type B<sub>2</sub>**  
Web With  
Lighten Holes



**Type B<sub>3</sub>**  
Web With Spokes



**Type B**



**Type B<sub>2</sub>, B<sub>3</sub>**

### Cast — Style "B"

No. Teeth	Catalog Number	Pressure Angle (Deg.)	Diameter		Type	Bore (Inches)		Hub (Inches)		Weight Lbs. (App.)
			Pitch	Outside		Stock	Max.*	Diameter	Proj.	
24	C324	14½	8.000	8.666	B	1⅞	2⅞	4½	1¼	40.4
28	C328	14½	9.333	10.000	B	1⅞	3⅞	5½	1¼	54.2
30	C330	14½	10.000	10.666	B	1⅞	3⅞	5½	1¼	57.1
32	C332	14½	10.667	11.333	B	1⅞	3⅞	5½	1¼	62.4
36	C336	14½	12.000	12.666	B <sub>2</sub>	1⅞	3¼	5½	1¼	71.3
40	C340	14½	13.333	14.000	B <sub>2</sub>	1⅞	3¼	5½	1¼	75.9
42	C342	14½	14.000	14.666	B <sub>2</sub>	1⅞	3¼	5½	1¼	79.5
45	C345	14½	15.000	15.666	B <sub>2</sub>	1⅞	3¼	5½	1¼	85.0
48	C348	14½	16.000	16.666	B <sub>3</sub>	1⅞	3¼	5½	1¼	92.9
54	C354	14½	18.000	18.666	B <sub>3</sub>	1⅞	3¼	5½	1¼	104
60	C360	14½	20.000	20.666	B <sub>3</sub>	1⅞	3¼	5½	1¼	115
72	C372	14½	24.000	24.666	B <sub>3</sub>	1⅞	3⅞	6	1¼	153
75	C375	14½	25.000	25.666	B <sub>3</sub>	1⅞	3⅞	6	1¼	155
84	C384	14½	28.000	28.666	B <sub>3</sub>	1⅞	3⅞	6	1¼	178
90	C390	14½	30.000	30.666	B <sub>3</sub>	1⅞	3⅞	6	1¼	185
96	C396	14½	32.000	32.666	B <sub>3</sub>	1⅞	3⅞	6	1¼	205
105	C3105	14½	35.000	35.666	B <sub>3</sub>	1⅞	3⅞	6	1¼	216
108	C3108	14½	36.000	36.666	B <sub>3</sub>	1⅞	3⅞	6	1¼	228
120	C3120	14½	40.000	40.666	B <sub>3</sub>	1⅞	4	6	1¼	226

\* Recommended Maximum Bore With Keyway and Setscrew.

14½° P.A. Gears Will Not Operate With 20° P.A.

GEARS







































