

# MINING & QUARRY APPLICATIONS

Chart 1/4

Product Size & Color Identification	Alloy Grade	Thickness Avg	BUCKET LINES BOTTOM	SHOVEL BUCKETS INSIDE	SHOVEL BUCKETS OUT SIDE	TRUCK LINES
5 on 5	HC 1650 HC 1670 HC 1680	3/8	● A ●	● ● ●	● ● ●	● ● ●
6 on 7	HC 1650 HC 1670 HC 1680	1/2	● AQ ●	● AFE ●	● AQ ●	● ● ●
10 on 9	HC 1650 HC 1670 HC 1680	3/4	ABE1 ABG1 ●	AB1 ABEF1 ABOG	AB1 ABFE1 ABGO1	AB13 AB1 ●
16 on 11	HC 1650 HC 1670 HC 1680	1	ABE1 AQ AB1	AB1 ABEF1 ABOG1	AB1 ABFE1 ABGO1	AB13 AB1 ●
20 on 11	HC 1650 HC 1670 HC 1680	11/4	AB1 ABG1 ●	AB1 ABEF1 ABO1	● A ●	● AQ ●
24 on 11	HC 1650 HC 1670 HC 1680	13/8	A AQ AQ	● AQ ●	● AQ ●	● AQ ●
39 on 11	HC 1650 HC 1670 HC 1680	2	AQ A A	● A ●	● A ●	● A ●
50 on 11	HC 1650 HC 1670 HC 1680	23/8	● AQ ●	● AQ ●	● A ●	● ● ●

## APPLICATION TYPE

- A- Std replacement wear plate  
 F- Extreme abrasion  
 O- Low coefficient friction to reduce hang up
- B- Extreme wear application  
 G- High impact with abrasion  
 Q- Call for tech support
- E- Medium impact with abrasion  
 L- Disposable chutes

## FIXING TYPE

- 1- Perimeter welding fixing & plug weld  
 4- Backing plate stud fixings
- 3- Formable for bending pipe  
 5- Counter sunk holes

## ALLOY GRADE

- HC 1650 M7c3 Carbide  
 HC 1670 Tungsten  
 HC 1680 Niobium

# MINING & QUARRY APPLICATIONS

Chart 2/4

Product Size & Color Identification	Alloy Grade	Thickness Avg	BIN LINERS	DISPOSABLE CHUTES	TRANSFER CHUTES	DOZER PUSH ARMS
5 on 5	HC 1650 HC 1670 HC 1660	3/8	A13 A13 ●	A13 AL13 A13	● A13 ●	● ● ●
6 on 7	HC 1650 HC 1670 HC 1660	1/2	AFE A13 ●	A13 A13 ●	● AQ ●	● AQ ●
10 on 9	HC 1650 HC 1670 HC 1660	3/4	A13 AFE A13	AL13 AFEL A13	A13 AFEL A13	A13 AG13 ●
16 on 11	HC 1650 HC 1670 HC 1660	1	● AFE ●	A13 AFLE ●	A13 AFEL A13	A13 A13 ●
20 on 11	HC 1650 HC 1670 HC 1660	1 1/4	● A ●	● AQ ●	● A ●	● A ●
24 on 11	HC 1650 HC 1670 HC 1660	1 3/8	● AQ ●	● AQ ●	● AQ ●	● A ●
39 on 11	HC 1650 HC 1670 HC 1660	2	● A ●	● AQ ●	● A ●	● A ●
50 on 11	HC 1650 HC 1670 HC 1660	2 3/8	AB13 AQ AB13	● AQ ●	● AQ ●	● A ●

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 HC 1670 Tungsten  
 HC 1660 Niobium

# MINING & QUARRY APPLICATIONS

Chart 3/4

Product Size & Color Identification	Alloy Grade	Thickness Avg	UNDER GROUND BUCKETS	CRUSHER JAW CHECKS	CRUSHER MAIN FRAME LINERS	SCREENS
5 on 5	HC 1850 HC 1870 HC 1880	3/8	● A ●	● ● ●	● ● ●	● A ●
6 on 7	HC 1850 HC 1870 HC 1880	1/2	● ● ●	● ● ●	● AQ ●	● AFEL ●
10 on 9	HC 1850 HC 1870 HC 1880	3/4	A1 AG1L AE1G	● AQ ●	A13 A AEG13	AL13 A AEG13
16 on 11	HC 1850 HC 1870 HC 1880	1	AEG1 AEG1 ●	A13 A13 ●	A13 A13 ●	A13 A13 ●
20 on 11	HC 1850 HC 1870 HC 1880	11/4	● A ●	A13 A13 ●	● A ●	A13 A13 ●
24 on 11	HC 1850 HC 1870 HC 1880	13/8	● AQ ●	● ● ●	● A ●	● ● ●
39 on 11	HC 1850 HC 1870 HC 1880	2	● A ●	● ● ●	● A ●	● AQ ●
50 on 11	HC 1850 HC 1870 HC 1880	23/8	● AQ ●	● A ●	● ● ●	● A ●

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## ALLOY GRADE

HC 1850 M7c3 Carbide  
HC 1870 Tungsten  
HC 1880 Niobium

# MINING & QUARRY APPLICATIONS

Chart 4/4

Product Size & Color Identification	Alloy Grade	Thickness Avg	DOZER LINERS	SKIRT BOARDS	GRIZZLEY BARS	TRANSFER CHUTES
5 on 5	HC 1850 HC 1870 HC 1860	3/8	● ● ●	A13 AL13 ●	● ● ●	● A ●
6 on 7	HC 1850 HC 1870 HC 1860	1/2	● ● ●	AL13 A13 AG13	● ● ●	A13 A13 ●
10 on 9	HC 1850 HC 1870 HC 1860	3/4	AL1 A ●	A13 AFEL A13	● ● ●	A13 AFEL A13
16 on 11	HC 1850 HC 1870 HC 1860	1	● AE1 ●	A13 AFLE ●	● ● ●	A13 AFEL A13
20 on 11	HC 1850 HC 1870 HC 1860	11/4	● A ●	A13 AFE13 ●	● ● ●	● A ●
24 on 11	HC 1850 HC 1870 HC 1860	13/8	● AQ ●	A13 ●	● ● ●	● A ●
39 on 11	HC 1850 HC 1870 HC 1860	2	● A ●	● A ●	● A ●	● A ●
50 on 11	HC 1850 HC 1870 HC 1860	23/8	● ● ●	● AQ ●	● ● ●	● A ●

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 HC 1870 Tungsten  
 HC 1860 Niobium

# CEMENT & CONCRETE PLANT APPLICATIONS

Chart 1/1

Product Size & Color Identification	Alloy Grade	Thickness Avg	FAN BLADES	MIXING BINS, PADDLE	CHUTE CONES	SILO LINERS
5 on 5	HC 1650 HC 1670 HC 1660	3/8	● ABF13 ●	ABF13 A ●	● ● ●	● ● ●
6 on 7	HC 1650 HC 1670 HC 1660	1/2	ABF13 ALFE AQ	AL ALF ●	● AQ ●	● ● ●
10 on 9	HC 1650 HC 1670 HC 1660	3/4	● AFE ●	● AFE ●	AB1 ABFE1 ABGO1	AB13 AB1 ●
16 on 11	HC 1650 HC 1670 HC 1660	1	● ALFE1 ●	● A ●	AB1 ABFE1 ABGO1	AB13 AB1 ●
20 on 11	HC 1650 HC 1670 HC 1660	1 1/4	● ● ●	● A ●	● A ●	● AQ ●
24 on 11	HC 1650 HC 1670 HC 1660	1 3/8	● ● ●	● AQ ●	● AQ ●	● AQ ●
39 on 11	HC 1650 HC 1670 HC 1660	2	● ● ●	● A ●	● A ●	● A ●
50 on 11	HC 1650 HC 1670 HC 1660	2 3/8	● ● ●	● A ●	● A ●	● ● ●

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 HC 1660 Niobium

# POWER GENERATION APPLICATIONS

Chart 1/1

Product Size & Color Identification	Alloy Grade	Thickness Avg	FAN BLADES	CHUTES & HOPPERS	PULVERSIED FUEL LINERS	SCREW CONVEYOURS	ROLLED PIPING	CRUSHER SCREENS
5 on 5	HC 1650	3/8	●	●	●	●	●	●
	HC 1670		ABF13	A	A	●	A	●
	HC 1660		●	●	●	●	●	●
6 on 7	HC 1650	1/2	ABF13	●	●	AB13	●	ABF13
	HC 1670		AQ	AB13	A13	ABFE13	AB13	ALFE
	HC 1660		●	●	●	●	●	A13
10 on 9	HC 1650	3/4	●	AB13	●	AB13	●	AB15
	HC 1670		A	A13	ABFE13	AB13	A	
	HC 1660		●	●	●	●	A13	
16 on 11	HC 1650	1	●	●	●	AB13	●	AQ
	HC 1670		●	A	●	ABFE13	A15	A13
	HC 1660		●	●	●	●	●	●
20 on 11	HC 1650	1 1/4	●	●	●	●	●	A
	HC 1670		A	●	A	AQ	●	A13
	HC 1660		●	●	●	●	●	●
24 on 11	HC 1650	1 3/8	●	●	●	●	●	●
	HC 1670		A	●	●	AQ	AQ	AQ
	HC 1660		●	●	●	●	●	●
39 on 11	HC 1650	2	●	●	●	●	●	●
	HC 1670		A	●	A	AQ	●	●
	HC 1660		●	●	●	●	●	●
50 on 11	HC 1650	2 3/8	●	●	●	●	●	●
	HC 1670		A	●	●	AQ	AQ	●
	HC 1660		●	●	●	●	●	●

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 HC 1660 Niobium

# PULP & PAPER APPLICATIONS

Chart 1/1

Product Size & Color Identification	Alloy Grade	Thickness Avg	DEBARKING CHAIN SKIRTS	CHIPPER HOODS	IMPACT PLATES	CYCLONES & CHUTES	FLAT BACK ELBOWS
5 on 5	HC 1650 HC 1670 HC 1680	3/8	● AL15 ●	● AL1 ●	● ● ●	● AB13 ●	● ABL13 ●
6 on 7	HC 1650 HC 1670 HC 1680	1/2	● A15 ●	A1 AQ ●	● AQ ●	ABF13 ABFE13 ●	● AB13 ●
10 on 9	HC 1650 HC 1670 HC 1680	3/4	● A15 ●	● ● ●	A1 AFE A1	AB13 AFE A13	AB13 A ●
16 on 11	HC 1650 HC 1670 HC 1680	1	● A15 ●	ABE1 ABE1 ●	● A1 ●	● A ●	● A ●
20 on 11	HC 1650 HC 1670 HC 1680	1 1/4	● A ●	● AQ ●	● ● ●	AQ A13 ●	● A ●
24 on 11	HC 1650 HC 1670 HC 1680	1 3/8	● A ●	● AQ ●	● AQ ●	● AQ ●	● AQ ●
39 on 11	HC 1650 HC 1670 HC 1680	2	● AQ ●	● AQ ●	● ● ●	● AQ ●	● A ●
50 on 11	HC 1650 HC 1670 HC 1680	2 3/8	● A ●	● ● ●	● AQ ●	AQ ABFE ●	● ● ●

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 HC 1670 Tungsten  
 HC 1680 Niobium

# STEEL FOUNDRIES APPLICATIONS

Chart 1/2

Product Size & Color Identification	Alloy Grade	Thickness Avg	PALLETISING PLANTS	SINTER SCREENS	COKE SCREENS	FEED BINS
5 on 5	HC 1650 HC 1670 HC 1680	3/8	● ● ●	● A ●	● A ●	● A ●
6 on 7	HC 1650 HC 1670 HC 1680	1/2	ABE1 AQ ●	● ABE1 ●	A13 AFE13 AG13	● A ●
10 on 9	HC 1650 HC 1670 HC 1680	3/4	● ABE1 ●	ABE1 ABFEE1 ●	A13 AFE13 AG13	● AB1 ●
16 on 11	HC 1650 HC 1670 HC 1680	1	● ● ●	ABF13 AQ ●	A13 A13 ●	AB14 AQ ●
20 on 11	HC 1650 HC 1670 HC 1680	11/4	● A ●	● AQ ●	● AQ ●	● AB14 ●
24 on 11	HC 1650 HC 1670 HC 1680	13/8	● AQ ●	● AQ ●	● AQ ●	● AQ ●
39 on 11	HC 1650 HC 1670 HC 1680	2	● A ●	● A ●	● AQ ●	● ● ●
50 on 11	HC 1650 HC 1670 HC 1680	23/8	● A ●	● AQ ●	● A ●	● ABFEG ●

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## ALLOY GRADE

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 HC 1670 Tungsten  
 HC 1680 Niobium



# STEEL FOUNDRIES APPLICATIONS

Chart 2/2

Product Size & Color Identification	Alloy Grade	Thickness Avg	DISTRIBUTION CHUTES	BLAST FURNES		
5 on 5	HC 1650 HC 1670 HC 1660	3/8	● A ●	● A ●	● ● ●	● ● ●
6 on 7	HC 1650 HC 1670 HC 1660	1/2	AB13 AB134 ●	● AB13 ●	● ● ●	● ● ●
10 on 9	HC 1650 HC 1670 HC 1660	3/4	● AB134 ●	AB13 AFE13 ●	● ● ●	● ● ●
16 on 11	HC 1650 HC 1670 HC 1660	1	AB134 AQ ●	● A ●	● ● ●	● ● ●
20 on 11	HC 1650 HC 1670 HC 1660	11/4	AB134 AFE13 ●	● A ●	● ● ●	● ● ●
24 on 11	HC 1650 HC 1670 HC 1660	13/8	● A ●	● ● ●	● ● ●	● ● ●
39 on 11	HC 1650 HC 1670 HC 1660	2	● A ●	● AQ ●	● ● ●	● ● ●
50 on 11	HC 1650 HC 1670 HC 1660	23/8	● A ●	● ● ●	● ● ●	● ● ●

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# RAIL APPLICATIONS

Chart 1/1

Product Size & Color Identification	Alloy Grade	Thickness Avg	TRAIN LOAD OUT STATIONS	CAR DUMPERS	SLEW RINGS	
5 on 5	HC 1850 HC 1870 HC 1880	3/8	● ● ●	● ● ●	● ● ●	● ● ●
6 on 7	HC 1850 HC 1870 HC 1880	1/2	● ● ●	● ● ●	A AFE AGE	● ● ●
10 on 9	HC 1850 HC 1870 HC 1880	3/4	ABL15 AB15 AB15	ABL15 AB15 AB15	AB13 AFE AGE	● ● ●
16 on 11	HC 1850 HC 1870 HC 1880	1	ALB15 ABFE15 ABFEQ15	ALB15 ABFE15 ABFEQ15	AB134 AFE AGE	● ● ●
20 on 11	HC 1850 HC 1870 HC 1880	11/4	ALB15 ABFE15 AB15	ALB15 ABFE15 AB15	● A ●	● ● ●
24 on 11	HC 1850 HC 1870 HC 1880	13/8	ABL15 ABFE15 ABGF15	ABL15 ABFE15 ABGF15	● AQ ●	● ● ●
39 on 11	HC 1850 HC 1870 HC 1880	2	AB15 ABFE15 ABGF15	AB15 ABFE15 ABGF15	● A ●	● ● ●
50 on 11	HC 1850 HC 1870 HC 1880	23/8	AB15 ABFE15 ABGF15	AB15 ABFE15 ABGF15	● A ●	● ● ●

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## ALLOY GRADE

- HC 1850 M7c3 Carbide  
 HC 1870 Tungsten  
 HC 1880 Niobium

# SUGAR APPLICATIONS

Chart 1/2

Product Size & Color Identification	Alloy Grade	Thickness Avg	CHECK PLATES	CHUTE LINERS	TRASH PLATES	SHREDDER LINERS PLATES
5 on 5	HC 1650 HC 1670 HC 1660	3/8	● ● ●	● A13 ●	● ● ●	● AL13 ●
6 on 7	HC 1650 HC 1670 HC 1660	1/2	● ● ●	A13 AQ ●	● ● ●	AL13 A ●
10 on 9	HC 1650 HC 1670 HC 1660	3/4	● A ●	A13 AFEL1 A13	A13 A13 ●	A13 AG13 ●
16 on 11	HC 1650 HC 1670 HC 1660	1	A13 AB15 A13	A13 AFEL1 A13	A13 AFE13 AG13	● AQ ●
20 on 11	HC 1650 HC 1670 HC 1660	1 1/4	A13 A13 ●	● A ●	A13 AG13 ●	● ● ●
24 on 11	HC 1650 HC 1670 HC 1660	1 3/8	● A ●	● AQ ●	● ● ●	● AQ ●
39 on 11	HC 1650 HC 1670 HC 1660	2	● ● ●	● AQ ●	● ● ●	● AQ ●
50 on 11	HC 1650 HC 1670 HC 1660	2 3/8	● A ●	● AQ ●	● ● ●	● AQ ●

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# SUGAR APPLICATIONS

Chart 2/2

Product Size & Color Identification	Alloy Grade	Thickness Avg	TRANSFER CHUTES	SILO BINS	SCRUBBERS	BOIL TANKS
5 on 5	HC 1850 HC 1870 HC 1860	3/8	● ● ●	ABL134 A ●	● ● ●	A13 AFE1 A13
6 on 7	HC 1850 HC 1870 HC 1860	1/2	● AL13 ●	AB134 AGB1 ●	ABL1 A AGB1	A13 A1FE A13
10 on 9	HC 1850 HC 1870 HC 1860	3/4	A13 AFE ●	● A ●	AB1 AGE1 ●	A13 AFE1 AG13
16 on 11	HC 1850 HC 1870 HC 1860	1	A13 AFE13 AG13	● ● ●	● AQ ●	● AQ ●
20 on 11	HC 1850 HC 1870 HC 1860	11/4	● A ●	● ● ●	● AQ ●	● A ●
24 on 11	HC 1850 HC 1870 HC 1860	13/8	● A ●	● ● ●	● AQ ●	● ● ●
39 on 11	HC 1850 HC 1870 HC 1860	2	● ABFE15 ●	● A ●	● ● ●	● AQ ●
50 on 11	HC 1850 HC 1870 HC 1860	23/8	A ABFEG ●	● ● ●	● A ●	A AQ ●

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HC 1860 Niobium