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Belt Drive & Bearings Reference Guide

- Product Information
- Installation
- Preventative Maintenance
- Troubleshooting




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▲WARNING

Disconnect power before installation and maintenance. Failure to do so can result in severe injury or death.



▲WARNING

Operating drives without guards in place can result in severe injury or death.

Belts & Sheaves

Air Handling Solutions

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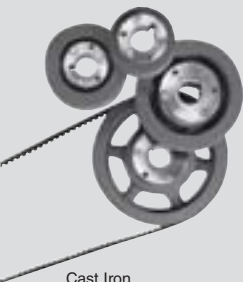
SUPER
GRIPBELT[®]



"358" GRIPBELT[®]



GRIPNOTCH
GRIPBELT[®]



Cast Iron
Sheaves



Variable Pitch
Cast Iron
Sheaves



B5V Sheaves



FHP Drives

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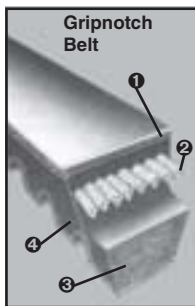
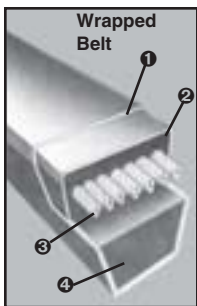
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V-Belt Drive Advantages

V-belt drives provide many maintenance advantages that help in your daily struggle to reduce equipment repairs and to hold forced downtime to the lowest possible level.

1. They are rugged—they will give years of trouble-free performance when given just reasonable attention...even under adverse conditions.
2. They are clean—require no lubrication.
3. They are efficient—performing with an average of 94-98% efficiency.
4. They are smooth starting and running.
5. They cover extremely wide horsepower ranges.
6. They permit a wide range of driven speeds, using standard electric motors.
7. They dampen vibration between driving and driven machines.
8. They are quiet.
9. They act as a “safety fuse” in the power drive because they refuse to transmit a severe overload of power, except for a very brief time.
10. V-belts and sheaves **wear gradually**—making preventive corrective maintenance simple and easy.

V-Belt Construction



Before we talk about “Avoiding Problems” and “Solving Problems”, let’s take a brief look at how V-belts are constructed.

There are basically two types of construction. One has a fabric wrapper (or jacket) surrounding it; the other – usually rated higher in horsepower – is made in a raw edged, cogged construction.

Wrapped Belt

- 1. Cover** - Woven cotton fabric impregnated with neoprene.
- 2. Tension Section** - Synthetic rubber especially compounded to stretch as belt bends around sheaves.
- 3. Cords** - High-strength, synthetic fiber cords carry the horsepower load and minimize stretching.
- 4. Compression Section** - Synthetic rubber compounded to support cords evenly and compress while bending around sheaves.

Gripnotch V-Belts

- 1. Tension Section** - specially woven stress-relieved fabric stretches up to 176% more than ordinary bias-cut fabric.
- 2. Cords** - Synthetic Hi-Modulus cords from the strength member to carry high loads with minimum stretching.
- 3. Compression Section** - Exclusive Stiflex® rubber compounds and precision molded cogs increase flexibility while supporting cords evenly.
- 4. Raw Edge Sidewalls** - Provide uniform, anti-slip surface, greater flexibility and allows more cord width.

Preventive Maintenance and Installation of V-Belt Drives

You will notice **Reference Key Numbers** (such as **A-1**) appear throughout this section. These refer to a more detailed discussion with illustrations relating to the subject in Section 2 (Corrective Maintenance and Troubleshooting).



⚠ WARNING

Operating drives without guards in place can result in severe injury or death.

Preventive Maintenance and Installation of V-Belt Drives

1. Safety First

Before doing any maintenance work on power drives, **be sure the controlling switch is in the OFF position—and locked if possible. Follow your plant's safety rules.**

2. Select Replacement Belts

B-1, B-2, B-3, B-4

After you have made any necessary corrections in your V-belt drive elements, the next step is the selection of the right replacement belts.

In replacing sets of V-belts, here are some **Very Important Reminders**:

- NEVER MIX NEW AND USED BELTS ON A DRIVE.
- NEVER MIX BELTS FROM MORE THAN ONE MANUFACTURER.
- ALWAYS REPLACE WITH THE RIGHT TYPE OF V-BELT.
- ALWAYS OBSERVE V-BELT MATCHING LIMITS.

3. Remove Belt Guard

A-1

Clean and inspect belt guard thoroughly. After removing the drive guard, loosen the drive take-up and move the sheaves closer together to facilitate the removal of any old belts, and to insure installation of the new belts without damage.



Preventive Maintenance and Installation of V-Belt Drives

4. Inspect Drive Elements

A-1, A-6

This is a good time to service the take-up rails by removing any rust and dirt, and lubricating as necessary so tensioning of the new belts will go smoothly and easily. You now also have an excellent opportunity to inspect and replace faulty or damaged machine elements such as worn bearings and bent shafts.

This procedure not only reduces the likelihood of future mechanical trouble, but insures maximum service from the new belts you are about to install.



Preventive Maintenance and Installation of V-Belt Drives

5. Inspect Sheaves

A-4, A-9

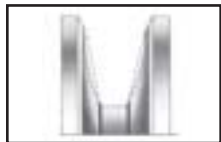
Sheave condition and alignment are vital to V-belt life and performance. **New V-belts should never be installed without a careful and thorough inspection of the sheaves involved.**

Particular attention should be given to these conditions.

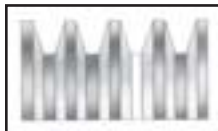
Replace sheaves if worn:

- a. Worn Groove Sidewalls
- b. Shiny Sheave Groove Bottom
- c. Wobbling Sheaves
- d. Damaged Sheaves

Sheaves should be carefully cleaned of any rust and foreign material. A wire brush followed up with a shop cloth will usually do the job.



Worn Groove Sidewalls



Shiny Sheave Groove Bottom



Wobbling Sheaves



Damaged Sheaves



Groove Gage

Preventive Maintenance and Installation of V-Belt Drives

6. Check Sheave Alignment (Final)

A-3

One of the great advantages of V-belt drives is the fact that perfect alignment of sheaves is not critical to the operation of the drive—V-belts tolerate misalignment of up to 1/16 inch per 12 inches of shaft center distance.

However, the closer you can come to perfect alignment, the better.

Refer to Section 2, A-3, for complete discussion of proper alignment procedures.

Note: Sheaves should always be mounted as close to the bearings as practical to avoid excessive loads on bearings and shafts.

7. Installing New Belts

A-1

Place the new belts on the sheaves, and be sure that the slack of each belt is on the same side. You can do this by pressing the belts with your hand to bring the slack on one side of the drive. Loosening the drive take-up in advance makes this easy.

Do not force the belts on the sheaves by using a pry bar or by rolling the sheaves. Now, move sheaves apart until the belts are seated in the grooves, and make preliminary tightening of the drive, just until the slack is taken up. (Tensioning suggestions follow in Step 8)



Preventive Maintenance and Installation of V-Belt Drives

8. Apply Tension

A-7, A-8

All V-belt drives must operate under proper tension to produce the wedging action of the belt against the groove sidewall. A well-established rule of thumb is that the best tension for a V-belt drive is the LEAST tension at which the drive will not slip under peak load. **BROWNING recommends using a belt tension checker to properly tension belts.**

9. Replace Guard

Start drive. (Look and listen) Check tension after 8, 24 and 100 hours and periodically thereafter.



Preventive Maintenance and Installation of V-Belt Drives**V-Belt Installation Check List**

- 1. Select proper replacement belts.
- 2. Cut off and lock out power source. Observe all other safety procedures.
- 3. Remove belt guard.
- 4. Remove old belts.
- 5. Loosen motor mounts.
- 6. Inspect drive elements—bearings, shaft, etc.
- 7. Inspect sheaves grooves for wear.
- 8. Check sheave alignment. (preliminary)
- 9. Install new belts.
- 10. Tension belts.
- 11. Check sheave alignment. (final)
- 12. Replace guard.
- 13. Start drive (look & listen).
- 14. Re-tension after 3 minutes, 8 hours, 24 hours, 100 hours, periodically thereafter.

Corrective Maintenance and Troubleshooting of V-Belt Drives

The first section of this HVAC Pocket Reference Guide outlined a step-by-step procedure for the installation of replacement V-belts to help you prevent V-belt maintenance problems.

The reason behind these steps is **also** fundamental in the daily inspection and maintenance of V-belt drives. **Watching** and **listening** will alert you to warning signs of trouble, since one of the greatest advantages of V-belt drives is the fact that belts and sheaves **wear gradually**. You can spot potential problems in time to arrange a short, **scheduled** maintenance downtime instead of experiencing a longer, costly interruption of production when unexpected trouble occurs.

V-belts may be thought of as being much like electrical fuses—their unexpected failure is usually a signal that something **else** in the system is wrong. Even their patterns of gradual wear can often indicate conditions needing corrections or improvements.



▲WARNING

Disconnect power before installation and maintenance.
Failure to do so can result in severe injury or death.

Corrective Maintenance and Troubleshooting of V-Belt Drives

CURES	A-1	A-2	A-3	A-4	A-5
CAUSES	Belts Pried On or Misplaced Slack	Belts Rubbing Guard	Sheaves Misaligned	Worn or Damaged Sheaves	Sheaves Too Far From Bearing
SYMPTOMS					
Rapid Sidewall Wear		●	●	*	
Worn Cover On Back	*				
Belt Turns Over Or Jumps Off Sheave	●				
Belt Soft, Swollen					
Belt Slips, Squeals (Spin Burn)				*	
Belt Cover Split	*				
Underside Cracked			●		
Tie-Band Damaged		●	●	*	
Repeated Breakage	●				
Belts Ride Too High					
Belts Bottoming				*	
Repeated Take-up Necessary				●	
Belts Vibrate Excessively or Appear Mismatched			●	●	
Bearings Are Hot				●	●
Shafts Whip Or Bend				●	●
Cracked Bushings				●	
Sheave Wobble				●	

* Indicates most common causes

● Indicates other possible causes

Corrective Maintenance and Troubleshooting of V-Belt Drives

																					A-6
●			●								●										Poor Bearing or Shaft Condition
	●																				A-7
		●																			Insufficient Tension
																					A-8
		●																			Excessive Tension
																					A-9
																					Improper Sheave Installation
			●																		B-1
			●																		Belts Worn (Normal Service Life)
																					B-2
												●									Wrong Belt Cross-Section or Type
																					B-3
																					Mismatched Belts or Mixed Brands
																					B-4
																					Machine-Induces Impulse or Shock
																					C-1
																					Improper or Prolonged Storage
																					C-2
																					Excessive Heat
																					C-3
																					Excessive Oil or Grease
																					C-4
																					Use of Belt Dressing
																					C-5
																					Abrasive Environment
																					C-6
																					Foreign Objects in Grooves
																					C-7
																					Excessive Moisture
																					D-1
																					Overloaded Drive Underbelting
																					D-2
																					Drive Seriously Overbelted
																					D-3
																					Sheaves Too Small
																					D-4
																					Insufficient Wrap on Small Sheave
																					D-5
																					Backside Idler

Troubleshooting Installation Problems

As pointed out in Section 1 of this manual, preventive maintenance by using proper installation techniques is important for long, trouble-free V-belt service.

Occasionally, however, you will find it necessary to correct problems caused by improper installation. This section deals with these problems and troubleshooting procedures.



▲WARNING

Operating drives without guards in place can result in severe injury or death.

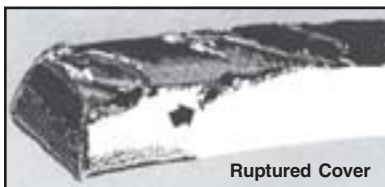
Troubleshooting Installation Problems

A-1 Prying or forcing V-belts onto the sheaves

can, and usually does, break some of the load-carrying tensile cords (see drawing on page 7, Section 1). When this happens, the belt may either break or turn over in the groove, usually within the first few minutes of operation. This method of installation may be evidenced by a rut or split in the wrapped cover of the belt, caused by the prying tool or sheave edge.

Broken cords are easily identifiable on raw-edge V-belts, because it is usually the edge cords that break first.

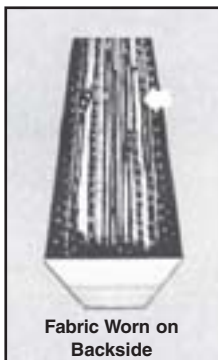
Misplaced Slack can also cause belt breakage, again usually on startup. This occurs on multiple-belt drives when all of the belt slack is not brought to the same side of the drive before tensioning. If some belts are tight on one side, and others are tight on the other side, the heavy shock load of starting will be borne by only some of the belts, thus weakening or breaking the load-carrying cords.



Ruptured Cover

A-2 Belts rubbing against the metal guard

or other obstruction will be evidenced by cut or worn fabric on the back or upper edge of the V-belt. Often just replacing missing bolts in guard brackets will remedy this situation.



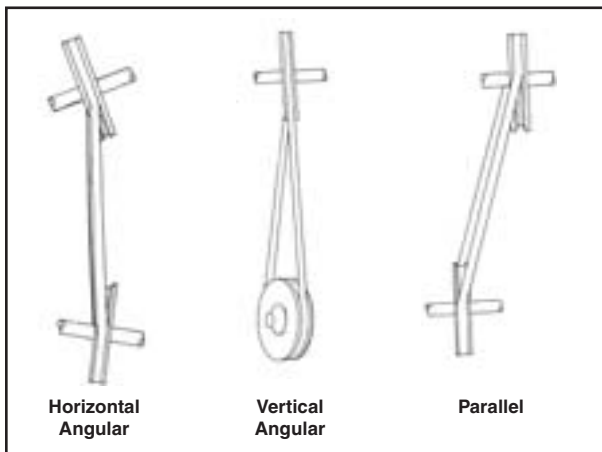
Fabric Worn on Backside

Troubleshooting Installation Problems

A-3 Misaligned sheaves

can cause rapid wear of the V-belt sidewalls, considerably shortening service life of both belts and sheaves. Misalignment can also cause separation of the tie-band on banded belts, or apparent mismatching of individual belts. V-belt sheave alignment should be within a tolerance of **1/16" per 12" of drive center distance**.

The three basic types of sheaves and shaft misalignment are shown below, with suggested methods for checking and correcting each type. Note that all **3** types may exist at the same time. Alignment should be **checked and corrected** in the order given.

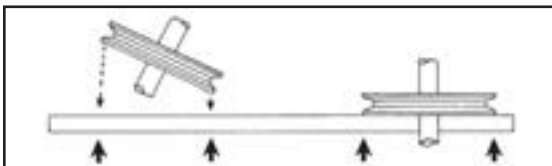


Troubleshooting Installation Problems

- 1. Horizontal Angular** (shafts in same horizontal plane but not parallel)

To Check: Use straightedge or string near sheave centers.

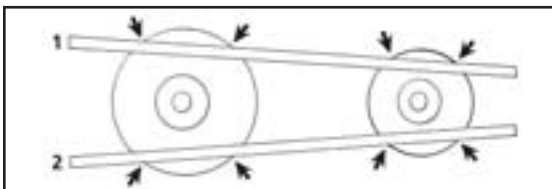
To Correct: Loosen motor mounting bolts and rotate motor until all 4 points touch straightedge.



- 2. Vertical Angular** (shafts not in the same plane and not parallel)

To Check: Place straightedge about 1/4 radius from the outside diameter of both sheaves as shown 1. Repeat on opposite side of shaft 2. Straightedge should touch 4 points indicated in each position.

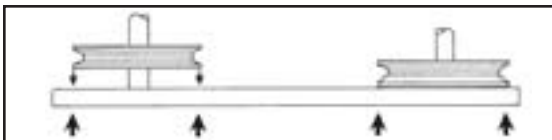
To Correct: Use shims under motor base in front or rear of motor, depending on type of correction required.



- 3. Parallel** (shafts are parallel; sheaves not in line)

To Check: Use straightedge or string near sheave centers.

To Correct: Loosen sheave so it slides easily on shaft until all 4 points touch straightedge. Retighten sheave in position. Important: Sheave should be mounted as close to bearing as possible to reduce overhung load on bearing. Relocate equipment if necessary.

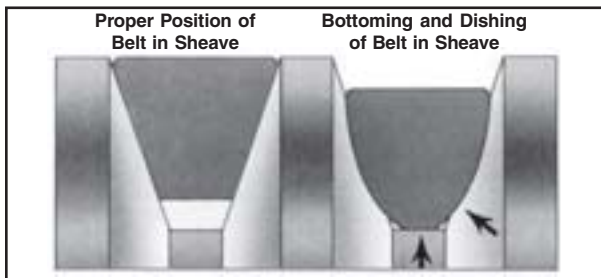


Troubleshooting Installation Problems

A-4 Worn or damaged sheaves are an even greater cause of rapid belt wear, slippage and vibration. Badly worn sheaves can cause over-tensioning of the drive to prevent slippage, indirectly causing over-heated bearings and shaft damage. If pieces of the sheave flange are missing, it will result in badly worn sidewalls of the belt, and the resulting sheave imbalance can damage bearings and create a safety hazard. When only some of the grooves are worn more than others, the effect is that the belts **appear** to be mismatched. It also causes “differential driving,” where only some of the belts are carrying the entire load of the drive.

In the case of banded belts, worn grooves cause the belts to ride too low in the grooves, thus causing the tie-band to wear against the sheave flanges between the grooves. In severe cases, this can have the same effect as a circular blade, cutting the band and separating the belts.

Sheave templates are available from your distributor, which can be used to check grooves accurately for wear. A flashlight held behind the template when placed in the groove will help you to



Troubleshooting Installation Problems

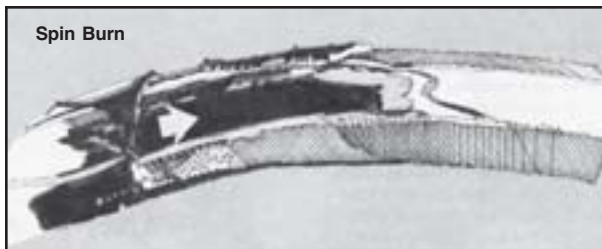
observe the amount of wear. “Dishing” should not exceed 1/32” for individual V-belts, or 1/64” for banded V-belts. A shiny groove bottom is a sign that the belt or sheave, or both are badly worn and the belt is bottoming in the groove. Worn sheaves or shiny sheave groove bottoms will show up first on the smaller sheave.

The cost of replacing a worn sheave will be more than recovered in longer V-belt life, reduced maintenance and downtime.

A-5 Sheaves mounted too far from the bearing cause excessive overhung load on the bearing and overheating. This can also cause shafting to whip, bend or break. Sheaves should be mounted as close as possible to the bearing. If this affects alignment severely, it may be necessary to relocate the equipment to stay within alignment limits of 1/16” per 12” of shaft center-to-center distance.

A-6 Bearing Condition and normal wear may well be the cause of overheating, rather than belt tension. They should be inspected for proper lubrication and wear according to the specifications of the bearing or equipment manufacturer. **Shaft condition** should also be checked and replace if necessary, as bent shafts can be detrimental to bearings, belts and sheaves, as well as being a safety hazard due to the imbalance created. Sheave “wobble” may be caused by bent shafts.

A-7 Insufficient belt tension vies closely with worn sheave grooves as the leading cause of V-belt slippage and other problems. This is often evidenced by “spin burn”. The easiest and most practical way for maintenance personnel to judge proper belt tension is by the “SST” method—Sight, Sound and Touch.



Troubleshooting Installation Problems

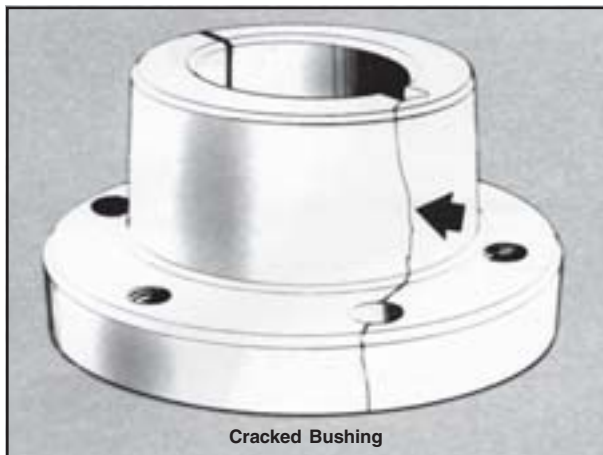
A-8 Excessive tension on V-belts can be even more detrimental than too little tension, affecting not only the belts, but also bearings and shafts. Again, the best rule is to apply only enough tension on the belts to keep them from slipping during startup or peak loading. Some indicators of excessive tensioning (but not always) are:

- Repeated belt breakage
- Excessive vibration
- Overheated bearings
- Whipping or bent shafts

A-9 Improper sheave and bushing installation can result in sheave “wobble” as well as causing bushings or sheave hubs to crack. When installing split-tapered bushings always follow manufacturer’s instructions.

It is important to **never** lubricate the tapered surfaces before installing. The lubrication will permit recommended torque wrench values to increase the actual force on the bushing and hub. This usually results in cracking of the bushings at the bolt hole or keyway.

On flanged bushing types, Proper installation should result in a gap between the bushing flange and the hub face. The absence of a gap may indicate a problem. When removing split-tapered bushings, start at the jack-screw hole opposite the split, to avoid cracking the bushing.



Troubleshooting Selection Problems

The array of V-belt types, cross-sections and lengths on the market today are all part of technological efforts to provide more efficient, cost-saving answers to your drive requirements.

This category is intended to point out how you can be sure of applying the best V-belt type to your applications.



▲WARNING

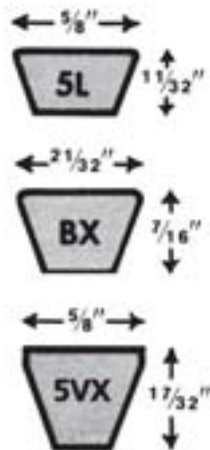
Operating drives without guards in place can result in severe injury or death.

Troubleshooting Selection Problems

B-1 Worn V-belts may have gotten that way simply because they have delivered the service life built into them. BROWNING, like other manufacturers, strives to build V-belts with a “balanced” construction, so each element of the belt will last as long as all other elements. But the wide variety of industrial applications, environmental conditions and maintenance practices makes this impossible to achieve. However, the expected life of an industrial V-belt on a properly designed drive is 3 to 5 years.

B-2 Using the wrong V-belt cross-section or type can create problems for you...and it's not hard to do, since many have similar dimensions. For example, the following V-belts have approximately the same top width (5/8") and length (85" Outside Circumference).

And yet, the horsepower ratings of these belts range from as little as 2.2 HP per belt to as much as 11.9 HP per belt on a 5" diameter sheave and 1750 RPM motor!



Troubleshooting Selection Problems

B-3 Mismatched belts or mixed brands from different manufacturers **cannot** be matched together, and will **not** deliver the service life they should.

Although all manufacturers use similar belt numbering systems, different brands with the same number will differ slightly in dimensions and are not capable of being mixed in a set. Also, construction differences cause them to ride differently in the grooves, and to stretch differently.

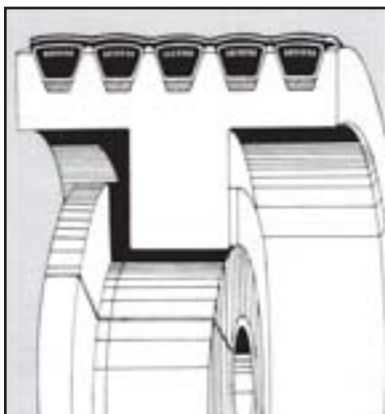
It should be noted that the majority of complaints regarding belt matching are found to be due to other causes, such as misalignment and sheave wear. These factors should always be checked if belts seem to be mismatched.

B-4 Machine-induced vibration or shock loads frequently can cause V-belts to whip or even jump off the drive, creating a safety hazard, and of course, damaging the belts.

On multiple-belt drives, this whipping can be reduced or eliminated by using banded V-belts. A banded V-belt consists of from 2 to 5 individual V-belts joined together with a bonded, reinforced tie-band (see illustration).

These belts will ride slightly higher in the sheave grooves to provide clearance between the band and the sheave flange. Because of this, sheave grooves should not be worn or “dished-out” more than $1/64$ ". Also, because they are banded together, alignment of the sheaves is somewhat more critical.

(The chart on the next page will be helpful in selecting the best belt for an application.)



Troubleshooting Selection Problems

V-Belt Selection Guide

Generic Belt Type (Cross Sections)	Normal HP Range	Maximum Belt Speed (FT/Min) ⁽¹⁾	Normal Temp. Range (°F) ⁽²⁾		Oil/Heat Resistance	Static Dissipating	General Application
			Min.	Max.			
Super Gripbelts (A, B, C, D)	1-500	6000	-35	140	Good	✓	General-Purpose Heavy Duty Industrial Drives
Gripnotch Multiple (AX, BX, CX)	1-500	6000	-35	140	Excellent	✓	Longer Life, High Efficiency, Small Diameters
358 Gripbelts (3V, 5V, 8V)	1-1000	3500	-35	140	Very Good	✓	High-Performance, Compact Industrial Drives, Long C.D.
358 Gripnotch (3VX, 5VX)	1-600	6500	-35	140	Excellent	✓	High-Performance, Compact Industrial Drives, Short C.D.
Double-V Belts (AA, BB, CC, DD)	1-200	5000	-35	140	Good	Special Order	Serpentine Drives
FHP (2L, 3L, 4L, 5L)	Light Duty	6000	-35	140	Fair	Special Order	Light Duty Drives Using a Single Belt

Notes: (1) Normally limited by sheave materials.
 (2) Expect little or no life loss due to heat.

Troubleshooting Environmental Problems

“Environmental Protection” can be as important for a V-belt as for humans. This section deals with the effect of adverse environmental conditions on V-belts, and how you can minimize these effects.



▲WARNING

Operating drives without guards in place can result in severe injury or death.

Troubleshooting Environmental Problems

C-1 Improper or prolonged storage can reduce service life considerably. V-belts should be stored in a cool, dry place with no direct sunlight. On shelves in boxes or piles, the stack should be small enough to avoid excess weight and distortion on the bottom belts. On pegs, the longer belts should be coiled in loops of suitable size to prevent distortion from the weight of the belt.

The following guide provided by the RMA should be followed for optimum conditions:

Guide to Maximum Number of Coilings of V-Belts of Storage

Belt Cross Section	Belt Length (Inches)	Number of Coilings*	Number of Loops*
A, AA, **3V and B	Under 60.0	None	1
	60.0 to 120.0	1	3
	120.0 to 180.0	2	5
	180.0 and up	3	7
BB, **C, and 5V	Under 75.0	None	1
	75.0 to 144.0	1	3
	144.0 to 240.0	2	5
	240.0 and up	3	7
D	Under 120.0	None	1
	120.0 to 240.0	1	3
	240.0 to 330.0	2	5
	330.0 to 420.0	3	7
	420.0 and up	4	9
E and 8V	Under 180.0	None	1
	180.0 to 270.0	1	3
	270.0 to 390.0	2	5
	390.0 to 480.0	3	7
	480.0 and up	4	9

*One coiling results in three loops; two coilings result in five loops, etc.

**"AA" and "BB" are know as "double angle" or "hexagonal" V-belts.

The pegs should be crescent shaped in cross-section to avoid compression set dents in the belts from sharp corners and the pegs should be sufficiently large in cross-section to avoid compression setting to sharp bends resulting from the weight of the hanging belts.

It is recognized that belts are sometimes coiled in smaller loops for packaging for shipment than indicated in the above table, but such packaging should not be for prolonged storage.

Troubleshooting Environmental Problems

C-2 Excessive heat. Standard construction V-belts are compounded for moderate resistance, and should give adequate service under normal conditions.

Belt temperature (not ambient or surrounding air temperature) is the determining factor when heat is a suspected cause of short belt life.

Tests have shown that the service life of a V-belt is cut in **half** for every 18°F raise in belt temperature.

Troubleshooting Belt Temperature. A good general rule for checking belt temperature without sophisticated instruments is to stop the drive (**lock it out!**) and touch the belt with your hand.

If you can grasp it firmly for at least 5 seconds, the belt temperature is probably not over 140°F and therefore not beyond the operating range for most V-belts. However, if you can't hold it for at least 5 seconds, the belt temperature is probably well over 140°F, and heat is contributing to short belt life.

Further evidence of heat may be the appearance of small cracks on the underside of the belt.

What to do about excessive heat:

1. Check for slippage (see key number A-7).
2. Ventilate the drive or shield from heat source.
3. Check to make sure the proper belt size is installed.
4. Check the horsepower capacity of the drive.



C-3 Excessive oil or grease. Standard construction V-belts are compounded for moderate grease and oil resistance. However, an excessive amount can cause softening, swelling and deterioration of the rubber compounds, as well as slippage.

What to do about oil or grease:

1. When there is occasional exposure from spillage or leakage, the belts and sheave grooves should be cleaned with a mixture of detergent and water—**after the drive has been locked out** and cause of leakage corrected.
2. When belts cannot be protected from oil, specially compounded oil-resistant V-belts should be used.

Troubleshooting Environmental Problems

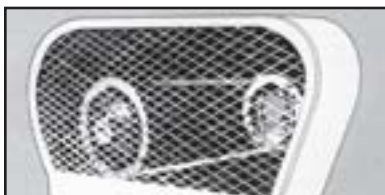
C-4 Never apply so-called “belt dressings” to V-belts. These compounds are usually made from a petroleum derivative and can have a destructive effect on rubber compounds and other components of the belt. If belts slip, check for adequate tension and/or worn sheave grooves (see **A-4**, **A-7**).



C-5 Abrasive conditions from sand, dust or grit can accelerate wear of both belts and sheaves. This is especially true when slippage is present. Belt selection can be an important factor. Experience has shown that raw-edge constructions reduce this wear because they reduce the “sandpaper-effect” caused by slippage. Drive should be well-shielded against excessive abrasive particles as much as possible.



C-6 Foreign objects, such as wood chips, can create havoc with V-belt drives. Belt breakage and turnover are the most common symptoms. Shielding the drive is a necessity. Belt guards with expanded metal screening are often used, but ventilation is sometimes sacrificed, possibly requiring additional induced cooling. Banding belts are often effective, since they eliminate belt turnover.



C-7 Excessive moisture can penetrate the fabric covering of a V-belt, causing deterioration. In addition, a large amount of water can reduce friction and cause slippage. Belt drives should be protected as much as possible when used outside or when subject to spray from washdown hoses, etc. Belt tension should be inspected regularly.

Troubleshooting Design Problems

When normal corrective measures as discussed in the previous sections do not seem to produce the desired results, an inherent design problem may be the culprit. The solutions to these are best left up to the Plant Engineering Department or a Certified Drive Specialist. However, the discussion presented in this section will help identify symptoms caused by design problems.



▲WARNING

Operating drives without guards in place can result in severe injury or death.

Troubleshooting Design Problems

D-1 Underbelting a drive, (using fewer belts than recommended by good design practice) results in excessive tension in each belt on the drive.

This is commonly evidenced by excessive stretching which requires frequent take-ups to prevent slippage. Another warning sign can be repeated belt breakage.

In many cases, underbelting can be corrected simply by using raw edge, cogged V-belts which have a higher horsepower rating. When these are used, drives should be identified to assure that future replacements are made with this type of belt. (Drive labels are available for this purpose.)

D-2 Drive overbelting, while usually resulting in longer V-belt life, can be just as serious as underbelting. The symptoms most commonly found are overheated bearings and bent shafts. This is especially true if belt tensioning devices are used without regard to design factors.

These devices, called tension-checkers, are quite helpful in determining proper belt tension, but tension values taken from published tables do not apply to all drives. Therefore, when these devices are used the deflection force values should be calculated, rather than taken from such tables. Contact BROWNING Technical Services, 800-626-2093, for proper tensioning values.

Tensioning devices measure the *individual* belt tensions; so, when too many belts are on the drive, the *total* tension can be excessive when “table” values are used. On the other hand, when too few belts are on the drive, tension values from these tables may be inadequate.

Most design handbooks contain the formulas and procedures for making these simple calculations.

Another not-so-common symptom is belt vibration, resulting from tension harmonics. Since induced vibration can be caused by several factors, this should be referred to Plant Engineering.



Troubleshooting Design Problems

D-3 When sheaves are too small for the belt cross-section, the belt flexes beyond its normal limits. This is usually evidenced by cracks on the underside of the belt. Table A indicates the minimum recommended sheave diameter for flexing each belt cross-section. In most cases, use of a raw-edge cogged belt will improve service life greatly, due to its greater flexibility.

Table A. Minimum Recommended Sheave and Idler Diameters.

V-Belt Cross Section	Minimum P.D. Sheave or Inside Idler	Minimum O.D. Flat Backside Idler*
A	3.0	4.5
B	5.0	7.5
C	9.0	13.5
D	13.0	19.5
E	21.0	31.5
AX	2.6	4.0
BX	4.0	6.0
CX	7.0	10.5
3V	2.6	-
5V	7.0	-
5VX	4.3	-
8V	12.4	-
8VX	11.2	-

*Note: Backside Idlers are detrimental to V-belt service life.

Another problem caused by sheaves that are too small is overheating of motor bearings, or even bent shafts. NEMA publishes minimum recommended sheave diameters for use with electric motors to avoid excessive bearing loads. Table B shows these minimums for the most common motor types.

D-4 Insufficient wrap on the small sheave can require excessive belt tension to prevent slippage. This condition may require redesign, either using more belts, increasing the center distance or using a backside idler with longer belts. This is again a matter for Plant Engineering.

Troubleshooting Design Problems

Table B. Application of V-Belt Sheave Dimensions to General-Purpose Motors

Frame No.	Integral-Horsepower Motors - Polyphase Induction				V-belt Sheave	
	Horsepower at Synchronous Speed, Rpm				Conventional A,B,C,D & E Minimum Pitch Diameter, Inches	Narrow 3V,5V & 8V Minimum Outside Diameter, Inches
	3600	1800	1200	900		
143T	1 1/2	1	3/4	1/2	2.2	2.2
145T	2-3	1 1/2-2	1	3/4	2.4	2.4
182T	3	3	1 1/2	1	2.4	2.4
182T	5	-	-	-	2.6	2.4
184T	-	-	2	1 1/2	2.4	2.4
184T	5	-	-	-	2.6	2.4
184T	7 1/2	5	-	-	3.0	3.0
213T	7 1/2-10	7 1/2	3	2	3.0	3.0
215T	10	-	5	3	3.0	3.0
215T	15	10	-	-	3.8	3.8
254T	15	-	7 1/2	5	3.8	3.8
254T	20	15	-	-	4.4	4.4
256T	20-25	-	10	7 1/2	4.4	4.4
256T	-	20	-	-	4.6	4.4
284T	-	-	15	10	4.6	4.4
284T	-	25	-	-	5.0	4.4
286T	-	30	20	15	5.4	5.2
324T	-	40	25	20	6.0	6.0
326T	-	50	30	25	6.8	6.8
364T	-	-	40	30	6.8	6.8
364T	-	60	-	-	7.4	7.4
365T	-	-	50	40	8.2	8.2
365T	-	75	-	-	9.0	8.6
404T	-	-	60	-	9.0	8.0
404T	-	-	-	50	9.0	8.4
404T	-	100	-	-	10.0	8.6
405T	-	-	75	60	10.0	10.0
405T	-	100	-	-	10.0	8.6
405T	-	125	-	-	11.5	10.5
444T	-	-	100	-	11.0	10.0
444T	-	-	-	75	10.5	9.5
444T	-	125	-	-	11.0	9.5
444T	-	150	-	-	-	10.5
445T	-	-	125	-	12.5	12.0
445T	-	-	-	100	12.5	12.0
445T	-	150	-	-	-	10.5
445T	-	200	-	-	-	13.2

*NEMA Standard, MG1-14.42

Troubleshooting Design Problems

D-5 Backside idlers can create their own problems, because they cause V-belts to bend opposite to the way they were designed. Care must be taken to see that a backside idler is large enough in diameter to reduce harmful stresses, which often cause cracks on the underside of the belt. Table A (under **D-3**) also shows these minimum recommended diameters.

Browning®

...OFFERS THE LARGEST SELECTION OF V-BELTS IN THE UNIVERSE!

BROWNING is universally known for V-belt drives. In fact, nowhere else can you find such a complete range of V-beltting – and the sheaves to run them – all in stock. Choose the type that's best for your application – classical, "358", Gearbelt, Ploy-V, Gripnotch, FHP.

And there's no problem with matched belt sizes either. **BROWNING** now offers the "**CODE 1**" one-match belt system on all classical and "358" belts, allowing easy selection with just one match number for each belt size. The **CODE 1** symbol on any **BROWNING** belt ensures matching tolerances tighter than RMA (Rubber Manufacturers Association) standards. Machine matching of belts is also available for critical match requirements.

Whenever you are in the universe – make **BROWNING** your first choice in V-belts. There's a **BROWNING** distributor near you to give you prompt service and delivery.



"358" GRIPBELT®



V-S VARIABLE SPEED GRIPBELT®



GRIPNOTCH GRIPBELT®



SUPER GRIPBELT®



GRIPBAND GRIPBELT®



DOUBLE V GRIPBELT®

SUPER GRIPBELTS®



"A" Belts
1/2" x 5/16"



"B" Belts
21/32" x 7/16"



"C" Belts
7/8" x 17/32"



"D" Belts
1 1/4" x 3/4"

Super Gripbelts are static conducting

Table 1 Stock Sizes

Belt No.	Length		Wt. Lbs.	Belt No.	Length		Wt. Lbs.
	Outside	Pitch			Outside	Pitch	
A21	23.2	22.3	0.2	A65	67.2	66.3	0.5
A22	24.2	23.3	0.2	A66	68.2	67.3	0.5
A23	25.2	24.3	0.2	A67	69.2	68.3	0.5
A24	26.2	25.3	0.2	A68	70.2	69.3	0.5
A25	27.2	26.3	0.2	A69	71.2	70.3	0.5
A26	28.2	27.3	0.2	A70	72.2	71.3	0.5
A27	29.2	28.3	0.2	A71	73.2	72.3	0.5
A28	30.2	29.3	0.2	A72	74.2	73.3	0.5
A29	31.2	30.3	0.2	A73	75.2	74.3	0.5
A30	32.2	31.3	0.2	A74	76.2	75.3	0.5
A31	33.2	32.3	0.2	A75	77.2	76.3	0.5
A32	34.2	33.3	0.2	A76	78.2	77.3	0.5
A33	35.2	34.3	0.2	A77	79.2	78.3	0.5
A34	36.2	35.3	0.2	A78	80.2	79.3	0.5
A35	37.2	36.3	0.2	A79	81.2	80.3	0.5
A36	38.2	37.3	0.3	A80	82.2	81.3	0.5
A37	39.2	38.3	0.3	A81	83.2	82.3	0.5
A38	40.2	39.3	0.3	A82	84.2	83.3	0.6
A39	41.2	40.3	0.3	A83	85.2	84.3	0.6
A40	42.2	41.3	0.3	A84	86.2	85.3	0.6
A41	43.2	42.3	0.3	A85	87.2	86.3	0.6
A42	44.2	43.3	0.3	A86	88.2	87.3	0.6
A43	45.2	44.3	0.3	A87	89.2	88.3	0.6
A44	46.2	45.3	0.3	A88	90.2	89.3	0.6
A45	47.2	46.3	0.3	A89	91.2	90.3	0.6
A46	48.2	47.3	0.3	A90	92.2	91.3	0.6
A47	49.2	48.3	0.3	A91	93.2	92.3	0.6
A48	50.2	49.3	0.3	A92	94.2	93.3	0.6
A49	51.2	50.3	0.4	A93	95.2	94.3	0.6
A50	52.2	51.3	0.4	A94	96.2	95.3	0.6
A51	53.2	52.3	0.4	A95	97.2	96.3	0.6
A52	54.2	53.3	0.4	A96	98.2	97.3	0.7
A53	55.2	54.3	0.4	A97	99.2	98.3	0.7
A54	56.2	55.3	0.4	A98	100.2	99.3	0.7
A55	57.2	56.3	0.4	A100	102.2	101.3	0.7
A56	58.2	57.3	0.4	A103	105.2	104.3	0.7
A57	59.2	58.3	0.4	A105	107.2	106.3	0.7
A58	60.2	59.3	0.4	A110	112.2	111.3	0.8
A59	61.2	60.3	0.4	A112	114.2	113.3	0.8
A60	62.2	61.3	0.4	A120	122.2	121.3	0.8
A61	63.2	62.3	0.4	A128	130.2	129.3	0.9
A62	64.2	63.3	0.4	A136	138.2	137.3	0.9
A63	65.2	64.3	0.4	A144	146.2	145.3	1.0
A64	66.2	65.3	0.4	A158	160.2	159.3	1.1



SUPER GRIPBELTS®

Table 2 Stock Sizes

Belt No.	Length		Wt. Lbs.	Belt No.	Length		Wt. Lbs.
	Outside	Pitch			Outside	Pitch	
A173	175.2	174.3	1.2	B76	79	77.8	0.8
A180	182.2	181.3	1.2	B77	80	78.8	0.8
B25	28	26.8	0.3	B78	81	79.8	0.8
B26	29	27.8	0.3	B79	82	80.8	0.8
B28	31	29.8	0.3	B80	83	81.8	0.9
B29	32	30.8	0.3	B81	84	82.8	0.9
B30	33	31.8	0.3	B82	85	83.8	0.9
B31	34	32.8	0.3	B83	86	84.8	0.9
B32	35	33.8	0.3	B84	87	85.8	0.9
B33	36	34.8	0.4	B85	88	86.8	0.9
B34	37	35.8	0.4	B86	89	87.8	1.0
B35	38	36.8	0.4	B87	90	88.8	1.0
B36	39	37.8	0.4	B88	91	89.8	1.0
B37	40	38.8	0.4	B89	92	90.8	1.0
B38	41	39.8	0.4	B90	93	91.8	1.0
B39	42	40.8	0.4	B91	94	92.8	1.0
B40	43	41.8	0.5	B92	95	93.8	1.0
B41	44	42.8	0.5	B93	96	94.8	1.0
B42	45	43.8	0.5	B94	97	95.8	1.0
B43	46	44.8	0.5	B95	98	96.8	1.0
B44	47	45.8	0.5	B96	99	97.8	1.1
B45	48	46.8	0.5	B97	100	98.8	1.1
B46	49	47.8	0.5	B98	101	99.8	1.1
B47	50	48.8	0.5	B99	102	100.8	1.1
B48	51	49.8	0.5	B100	103	101.8	1.1
B49	52	50.8	0.6	B101	104	102.8	1.1
B50	53	51.8	0.6	B103	106	104.8	1.1
B51	54	52.8	0.6	B105	108	106.8	1.1
B52	55	53.8	0.6	B106	109	107.8	1.1
B53	56	54.8	0.6	B108	111	109.8	1.2
B54	57	55.8	0.6	B111	114	112.8	1.2
B55	58	56.8	0.6	B112	115	113.8	1.2
B56	59	57.8	0.6	B116	119	117.8	1.3
B57	60	58.8	0.7	B120	123	121.8	1.3
B58	61	59.8	0.7	B123	126	124.8	1.3
B59	62	60.8	0.7	B124	127	125.8	1.3
B60	63	61.8	0.7	B126	129	127.8	1.4
B61	64	62.8	0.7	B128	131	129.8	1.4
B62	65	63.8	0.7	B133	136	134.8	1.5
B63	66	64.8	0.7	B136	139	137.8	1.5
B64	67	65.8	0.7	B140	143	141.8	1.6
B65	68	66.8	0.7	B144	147	145.8	1.6
B66	69	67.8	0.7	B148	151	149.8	1.6
B67	70	68.8	0.7	B150	153	151.8	1.6
B68	71	69.8	0.7	B154	157	155.8	1.7
B69	72	70.8	0.8	B158	161	159.8	1.7
B70	73	71.8	0.8	B162	165	163.8	1.7
B71	74	72.8	0.8	B173	176	174.8	1.9
B72	75	73.8	0.8	B180	183	181.8	1.9
B73	76	74.8	0.8	B190	193	191.8	2.0
B74	77	75.8	0.8	B191	194	192.2	2.0
B75	78	76.8	0.8	B195	198	196.8	2.0



SUPER GRIPBELTS®

Table 3 Stock Sizes

Belt No.	Length		Wt. Lbs.	Belt No.	Length		Wt. Lbs.
	Outside	Pitch			Outside	Pitch	
B205	208	206.9	2.2	C180	184.2	182.9	3.4
B210	213	211.8	2.3	C195	199.2	197.9	3.7
B225	226.5	225.3	2.5	C210	214.2	212.9	4.0
B240	241.5	240.3	2.6	C225	227.2	225.9	4.3
B255	256.5	255.3	2.8	C240	242.2	240.9	4.6
B270	271.5	270.3	2.9	C255	257.2	255.9	4.9
B285	286.5	285.3	3.1	C270	272.2	270.9	5.2
B300	301.5	300.3	3.2	C285	287.2	285.9	5.4
B315	316.5	315.3	3.4	C300	302.2	300.9	5.7
B360	361.5	360.3	4.0	C315	317.2	315.9	6.0
C51	55.2	53.9	1.0	C330	332.2	330.9	6.3
C55	59.2	57.9	1.1	C345	347.2	345.9	6.6
C60	64.2	62.9	1.2	C360	362.2	360.9	6.9
C68	72.2	70.9	1.3	C390	392.2	390.9	7.5
C72	76.2	74.9	1.4	C420	422.2	420.9	8.0
C75	79.2	77.9	1.4	D120	125.2	123.3	4.0
C78	82.2	80.9	1.5	D128	133.2	131.3	4.4
C81	85.2	83.9	1.6	D144	149.2	147.3	5.0
C85	89.2	87.9	1.6	D158	163.2	161.3	5.3
C90	94.2	92.9	1.7	D162	167.2	165.3	5.5
C96	100.2	98.9	1.8	D173	178.2	176.3	5.8
C97	101.2	99.9	1.8	D180	185.2	183.3	6.0
C99	103.2	101.9	1.9	D195	200.2	198.3	6.3
C100	104.2	102.9	1.9	D210	215.2	213.3	6.8
C101	105.2	103.9	1.9	D225	227.2	225.8	7.1
C105	109.2	107.9	2.0	D240	242.2	240.8	7.7
C108	112.2	110.9	2.0	D255	257.2	255.8	8.1
C109	113.2	111.9	2.0	D270	272.2	270.8	8.9
C111	115.2	113.9	2.1	D285	287.2	285.8	9.8
C112	116.2	114.9	2.1	D300	302.2	300.8	10.5
C115	119.2	117.9	2.1	D315	317.2	315.8	10.8
C120	124.2	122.9	2.3	D330	332.2	330.8	11.4
C124	128.2	126.9	2.4	D345	347.2	345.8	11.7
C128	132.2	130.9	2.4	D360	362.2	360.8	12.2
C136	140.2	138.9	2.6	D390	392.2	390.8	13.4
C144	148.2	146.9	2.8	D420	422.2	420.8	14.7
C148	152.2	150.9	2.8	D450	452.2	450.8	16.3
C150	154.2	152.9	2.9	D480	482.2	480.8	16.8
C158	162.2	160.9	3.0	D540	542.2	540.8	19.9
C162	166.2	164.9	3.1	D600	602.2	600.8	21.6
C173	177.2	175.9	3.3	D660	662.2	660.8	28.8

Gripnotch Belts



- Precision Molded Raw Edge Construction
- More Horsepower in Less Space
- Notches are Molded Extra Deep
- Oil and Heat Resistant

Table 1 BROWNING Gripnotch Belts

Belt No.	Length		Wt. Lbs.	Belt No.	Length		Wt. Lbs.
	Outside	Pitch			Outside	Pitch	
AX20	22.2"	21.3"	0.2	AX61	63.2	62.3	0.4
AX21	23.2	22.3	0.2	AX62	64.2	63.3	0.4
AX22	24.2	23.3	0.2	AX63	65.2	64.3	0.4
AX23	25.2	24.3	0.2	AX64	66.2	65.3	0.4
AX24	26.2	25.3	0.2	AX65	67.2	66.3	0.4
AX25	27.2	26.3	0.2	AX66	68.2	67.3	0.5
AX26	28.2	27.3	0.2	AX67	69.2	68.3	0.5
AX27	29.2	28.3	0.2	AX68	70.2	69.3	0.5
AX28	30.2	29.3	0.2	AX69	71.2	70.3	0.5
AX29	31.2	30.3	0.2	AX70	72.2	71.3	0.5
AX30	32.2	31.3	0.2	AX71	73.2	72.3	0.5
AX31	33.2	32.3	0.2	AX72	74.2	73.3	0.5
AX32	34.2	33.3	0.2	AX73	75.2	74.3	0.5
AX33	35.2	34.3	0.2	AX74	76.2	75.3	0.5
AX34	36.2	35.3	0.2	AX75	77.2	76.3	0.5
AX35	37.2	36.3	0.2	AX76	78.2	77.3	0.5
AX36	38.2	37.3	0.3	AX77	79.2	78.3	0.5
AX37	39.2	38.3	0.3	AX78	80.2	79.3	0.5
AX38	40.2	39.3	0.3	AX79	81.2	80.3	0.5
AX39	41.2	40.3	0.3	AX80	82.2	81.3	0.5
AX40	42.2	41.3	0.3	AX81	83.2	82.3	0.5
AX41	43.2	42.3	0.3	AX82	84.2"	83.3"	0.5
AX42	44.2	43.3	0.3	AX83	85.2	84.3	0.5
AX43	45.2	44.3	0.3	AX84	86.2	85.3	0.5
AX44	46.2	45.3	0.3	AX85	87.2	86.3	0.6
AX45	47.2	46.3	0.3	AX86	88.2	87.3	0.6
AX46	48.2	47.3	0.3	AX87	89.2	88.3	0.6
AX47	49.2	48.3	0.3	AX88	90.2	89.3	0.6
AX48	50.2	49.3	0.3	AX89	91.2	90.3	0.6
AX49	51.2	50.3	0.4	AX90	92.2	91.3	0.6
AX50	52.2	51.3	0.4	AX91	93.2	92.3	0.6
AX51	53.2	52.3	0.4	AX92	94.2	93.3	0.6
AX52	54.2	53.3	0.4	AX93	95.2	94.3	0.6
AX53	55.2	54.3	0.4	AX94	96.2	95.3	0.6
AX54	56.2	55.3	0.4	AX95	97.2	96.3	0.6
AX55	57.2	56.3	0.4	AX96	98.2	97.3	0.7
AX56	58.2	57.3	0.4	AX97	99.2	98.3	0.7
AX57	59.2	58.3	0.4	AX98	100.2	99.3	0.7
AX58	60.2	59.3	0.4	AX100	101.2	100.3	0.7
AX59	61.2	60.3	0.4	AX105	107.2	106.3	0.7
AX60	62.2	61.3	0.4	AX110	112.2	111.3	0.8



Gripnotch Belts

Table 2 BROWNING Gripnotch Belts

Belt No.	Length		Wt. Lbs.	Belt No.	Length		Wt. Lbs.
	Outside	Pitch			Outside	Pitch	
AX112	114.2	113.3	0.8	BX73	76.0	74.8	0.8
AX120	122.2	121.3	0.8	BX74	77.0	75.8	0.8
AX128	130.2	129.3	0.9	BX75	78.0	76.8	0.9
AX136	138.2	137.3	0.9	BX76	79.0	77.8	0.9
AX144	146.2	145.3	1.0	BX77	80.0	78.8	0.9
AX158	160.2	159.3	1.0	BX78	81.0	79.8	0.9
AX173	175.2	174.3	1.1	BX79	82.0	80.8	0.9
AX180	182.2	181.3	1.2	BX80	83.0	81.8	0.9
BX28	31.0	29.8	0.4	BX81	84.0	82.8	0.9
BX29	32.0	30.8	0.4	BX82	85.0	83.8	0.9
BX30	33.0	31.8	0.4	BX83	86.0	84.8	1.0
BX31	34.0	32.8	0.4	BX84	87.0	85.8	1.0
BX32	35.0	33.8	0.4	BX85	88.0	86.8	1.0
BX33	36.0	34.8	0.4	BX86	89.0	87.8	1.0
BX34	37.0	35.8	0.4	BX87	90.0	88.8	1.0
BX35	38.0	36.8	0.4	BX88	91.0	89.8	1.0
BX36	39.0	37.8	0.4	BX89	92.0	90.8	1.0
BX37	40.0	38.8	0.4	BX90	93.0	91.8	1.1
BX38	41.0	39.8	0.4	BX91	94.0	92.8	1.1
BX39	42.0	40.8	0.5	BX92	95.0	93.8	1.1
BX40	43.0	41.8	0.5	BX93	96.0	94.8	1.1
BX41	44.0	42.8	0.5	BX94	97.0	95.8	1.1
BX42	45.0	43.8	0.5	BX95	98.0	96.8	1.1
BX43	46.0	44.8	0.5	BX96	99.0	97.8	1.1
BX44	47.0	45.8	0.5	BX97	100.0	98.8	1.1
BX45	48.0	46.8	0.5	BX98	101.0	99.8	1.1
BX46	49.0	47.8	0.5	BX99	102.0	100.8	1.2
BX47	50.0	48.8	0.5	BX100	103.0	101.8	1.2
BX48	51.0	49.8	0.6	BX103	106.0	104.8	1.2
BX49	52.0	50.8	0.6	BX105	108.0	106.8	1.2
BX50	53.0	51.8	0.6	BX106	109.0	107.8	1.2
BX51	54.0	52.8	0.6	BX108	111.0	109.8	1.3
BX52	55.0	53.8	0.6	BX112	115.0	113.8	1.3
BX53	56.0	54.8	0.6	BX113	116.0	114.8	1.3
BX54	57.0	55.8	0.6	BX115	118.0	116.8	1.4
BX55	58.0	56.8	0.6	BX116	119.0	117.8	1.4
BX56	59.0	57.8	0.6	BX120	123.0	121.8	1.4
BX57	60.0	58.8	0.6	BX123	126.0	124.8	1.4
BX58	61.0	59.8	0.6	BX124	127.0	125.8	1.4
BX59	62.0	60.8	0.7	BX126	129.0	127.8	1.4
BX60	63.0	61.8	0.7	BX128	131.0	129.8	1.5
BX61	64.0	62.8	0.7	BX133	136.0	134.8	1.5
BX62	65.0"	63.8"	0.7	BX136	139.0	137.8	1.6
BX63	66.0	64.8	0.7	BX140	143.0	141.8	1.6
BX64	67.0	65.8	0.7	BX144	147.0	145.8	1.7
BX65	68.0	66.8	0.8	BX148	151.0	149.8	1.7
BX66	69.0	67.8	0.8	BX150	153.0	151.8	1.8
BX67	70.0	68.8	0.8	BX154	157.0	155.8	1.8
BX68	71.0	69.8	0.8	BX158	161.0	159.8	1.8
BX70	73.0	71.8	0.8	BX162	165.0	163.8	1.9
BX71	74.0	72.8	0.8	BX173	176.0	174.8	2.0
BX72	75.0	73.8	0.8	BX180	183.0	181.8	2.1



Gripnotch Belts

Table 3 BROWNING Gripnotch Belts

Belt No.	Length		Wt. Lbs.	Belt No.	Length		Wt. Lbs.
	Outside	Pitch			Outside	Pitch	
BX191	194.0"	192.8"	2.2	CX150	154.2	152.9	3.0
BX195	198.0	196.8	2.3	CX158	162.2	160.9	3.0
BX210	213.0	211.8	2.5	CX162	166.2	164.9	3.1
BX225	228.0	226.8	2.7	CX173	177.2	175.9	3.1
BX240	241.5	240.3	2.8	CX180	184.2	182.9	3.2
BX255	256.5	255.3	3.0	CX195	199.2	197.9	3.5
BX270	271.5	270.3	3.2	CX210	214.2	212.9	4.0
BX300	301.5	300.3	3.6	CX225	229.2	227.9	4.2
CX51	55.2	53.9"	1.0	CX240	242.2	240.9	4.3
CX55	59.2	57.9	1.1	CX255	259.2	257.9	4.6
CX60	64.2	62.9	1.2	CX270	272.2	270.9	5.0
CX68	72.2	70.9	1.4	CX300	304.2	302.9	5.4
CX72	76.2	74.9	1.4	CX330	334.2	332.9	5.9
CX75	79.2	77.9	1.5	CX360	364.2	362.9	6.3
CX78	82.2	80.9	1.6	DX120	125.2	123.3	4.3
CX81	85.2	83.9	1.6	DX128	133.2	131.3	4.4
CX85	89.2	87.9	1.7	DX144	149.2	147.3	5.0
CX90	94.2	92.9	1.8	DX158	163.2	161.3	5.4
CX96	100.2	98.9	1.9	DX162	167.2	165.3	5.6
CX100	104.2	102.2	2.0	DX173	178.2	176.3	5.9
CX101	105.2	103.9	2.0	DX180	185.2	183.2	6.2
CX105	109.2	107.9	2.0	DX195	200.2	198.3	6.4
CX109	113.2	111.9	2.1	DX210	215.2	213.3	7.3
CX111	115.2	113.9	2.2	DX225	227.7	225.8	7.6
CX112	116.2	114.9	2.2	DX240	242.7	240.8	8.4
CX115	119.2	117.9	2.3	DX255	257.7	225.8	8.6
CX120	124.2	122.9	2.4	DX270	272.7	270.8	9.5
CX128	132.2	130.9	2.6	DX300	302.7	300.8	10.0
CX136	140.2	138.9	2.7	DX330	332.7	330.8	11.5
CX144	148.2	146.9	2.9	DX360	362.7	360.8	12.3
CX148	152.2	150.9	3.0				

FHP Belts

- Wrapped construction provides smooth, quiet operation
- Formulated for maximum flexibility for use with smaller diameter sheaves
- More tolerant of slip and misalignment than raw edge belts
- Oil and heat resistant – static conducting

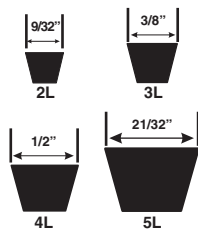


Table 1 Stock Sizes

Belt No.	Length		Wt. Lbs.	Belt No.	Length		Wt. Lbs.
	Outside	Pitch			Outside	Pitch	
2L120	12"	11.6"	.03	3L360	36	35.3	.11
2L140	14	13.6	.04	3L370	37	36.3	.12
2L150	15	14.6	.04	3L380	38	37.3	.12
2L160	16	15.6	.04	3L390	39	38.3	.12
2L180	18	17.6	.05	3L400	40	39.3	.13
2L200	20	19.6	.06	3L410	41	40.3	.13
2L220	22	21.6	.06	3L420	42	41.3	.13
2L240	24	23.6	.07	3L430	43	42.3	.13
2L285	28 1/2	28.1	.07	3L440	44	43.3	.14
2L300	30	29.6	.08	3L450	45	44.3	.14
2L310	31	30.6	.08	3L460	46	45.3	.14
2L320	32	31.6	.09	3L470	47	46.3	.15
2L325	32 1/2	32.1	.09	3L480	48	47.3	.15
2L345	34 1/2	34.1	.09	3L490	49	48.3	.15
3L110	11	10.3	.03	3L500	50	49.3	.16
3L120	12	11.3	.04	3L510	51	50.3	.16
3L130	13	12.3	.04	3L520	52	51.3	.16
3L140	14	13.3	.05	3L530	53	52.3	.17
3L150	15	14.3	.05	3L540	54"	53.3"	.17
3L160	16	15.3	.05	3L550	55	54.3	.18
3L170	17	16.3	.05	3L560	56	55.3	.18
3L180	18	17.3	.06	3L570	57	56.3	.18
3L190	19	18.3	.06	3L580	58	57.3	.18
3L200	20	19.3	.06	3L590	59	58.3	.19
3L210	21	20.3	.07	3L600	60	59.3	.19
3L220	22	21.3	.07	3L610	61	60.3	.19
3L230	23	22.3	.07	3L620	62	61.3	.19
3L240	24	23.3	.08	3L630	63	62.3	.20
3L250	25	24.3	.08	4L170	17	16.0	.10
3L260	26	25.3	.08	4L180	18	17.0	.10
3L270	27	26.3	.08	4L190	19	18.0	.11
3L280	28	27.3	.09	4L200	20	19.0	.11
3L290	29	28.3	.09	4L210	21	20.0	.12
3L300	30	29.3	.09	4L220	22	21.0	.12
3L310	31	30.3	.10	4L225	22 1/2	21.5	.13
3L320	32	31.3	.10	4L230	23	22.0	.13
3L330	33	32.3	.10	4L240	24	23.0	.13
3L340	34	33.3	.11	4L245	24 1/2	23.5	.13
3L350	35	34.3	.11	4L250	25	24.0	.13



FHP Belts

Table 2 Stock Sizes

Belt No.	Length		Wt. Lbs.	Belt No.	Length		Wt. Lbs.
	Outside	Pitch			Outside	Pitch	
4L260	26	25.0	.13	4L770	77	76.0	.44
4L270	27	26.0	.13	4L780	78	77.0	.44
4L280	28	27.0	.13	4L790	79	78.0	.44
4L290	29	28.0	.13	4L800	80	79.0	.44
4L300	30	29.0	.13	4L810	81	80.0	.44
4L310	31	30.0	.19	4L820	82	81.0	.44
4L320	32	31.0	.19	4L830	83	82.0	.44
4L330	33	32.0	.19	4L840	84	83.0	.44
4L340	34	33.0	.19	4L850	85	84.0	.50
4L350	35	34.0	.19	4L860	86	85.0	.50
4L360	36	35.0	.19	4L870	87	86.0	.50
4L370	37	36.0	.19	4L880	88	87.0	.50
4L380	38	37.0	.19	4L890	89	88.0	.50
4L390	39	38.0	.25	4L900	90	89.0	.50
4L400	40	39.0	.25	4L910	91	90.0	.50
4L410	41	40.0	.25	4L920	92	91.0	.50
4L415	41 1/2	40.5	.25	4L930	93	92.0	.50
4L420	42	41.0	.25	4L940	94	93.0	.50
4L430	43	42.0	.25	4L950	95	94.0	.50
4L440	44	43.0	.25	4L960	96	95.0	.50
4L450	45	44.0	.25	4L970	97	96.0	.50
4L460	46	45.0	.25	4L980	98	97.0	.56
4L470	47	46.0	.25	4L990	99	98.0	.56
4L480	48	47.0	.25	4L1000	100	99.0	.56
4L490	49	48.0	.31	5L230	23	21.8	.19
4L500	50	49.0	.31	5L240	24	22.8	.19
4L510	51	50.0	.31	5L250	25	23.8	.19
4L520	52	51.0	.31	5L260	26	24.8	.19
4L530	53	52.0	.31	5L270	27	25.8	.19
4L540	54	53.0	.31	5L280	28	26.8	.19
4L550	55	54.0	.31	5L290	29	27.8	.19
4L560	56	55.0	.31	5L300	30	28.8	.29
4L570	57	56.0	.31	5L310	31	29.8	.25
4L580	58	57.0	.31	5L320	32	30.8	.25
4L590	59	58.0	.31	5L330	33	31.8	.25
4L600	60	59.0	.31	5L340	34	32.8	.25
4L610	61	60.0	.31	5L350	35	33.8	.31
4L620	62	61.0	.31	5L360	36	34.8	.31
4L630	63"	62.0"	.31	5L370	37	35.8	.31
4L640	64	63.0	.38	5L380	38	36.8	.31
4L650	65	64.0	.38	5L390	39	37.8	.31
4L660	66	65.0	.38	5L400	40	38.8	.31
4L670	67	66.0	.38	5L410	41	39.8	.38
4L680	68	67.0	.38	5L420	42"	40.8"	.38
4L690	69	68.0	.38	5L430	43	41.8	.38
4L700	70	69.0	.38	5L440	44	42.8	.38
4L710	71	70.0	.38	5L450	45	43.8	.38
4L720	72	71.0	.38	5L460	46	44.8	.44
4L730	73	72.0	.38	5L470	47	45.8	.44
4L740	74	73.0	.38	5L480	48	46.8	.44
4L750	75	74.0	.44	5L490	49	47.8	.50
4L760	76	75.0	.44	5L500	50	48.8	.50

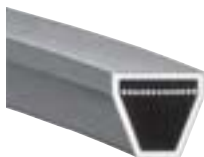


FHP Belts

Table 3 Stock Sizes

Belt No.	Length		Wt. Lbs.	Belt No.	Length		Wt. Lbs.
	Outside	Pitch			Outside	Pitch	
5L510	51	49.8	.50	5L760	76	74.8	.69
5L520	52	50.8	.50	5L770	77	75.8	.69
5L530	53	51.8	.50	5L780	78	76.8	.75
5L540	54	52.8	.50	5L790	79	77.8	.75
5L550	55	53.8	.50	5L800	80	78.8	.75
5L560	56	54.8	.50	5L810	81	79.8	.75
5L570	57	55.8	.50	5L820	82	80.8	.75
5L580	58	56.8	.50	5L830	83	81.8	.75
5L590	59	57.8	.50	5L840	84	82.8	.75
5L600	60	58.8	.56	5L850	85	83.8	.81
5L610	61	59.8	.56	5L860	86	84.8	.81
5L620	62	60.8	.56	5L870	87	85.8	.81
5L630	63	61.8	.56	5L880	88	86.8	.81
5L640	64	62.8	.63	5L890	89	87.8	.81
5L650	65	63.8	.63	5L900	90	88.8	.81
5L660	66	64.8	.63	5L910	91	89.8	.88
5L670	67	65.8	.63	5L920	92	90.8	.88
5L680	68	66.8	.63	5L930	93	91.8	.88
5L690	69	67.8	.63	5L940	94	92.8	.88
5L700	70	68.8	.69	5L950	95	93.8	.88
5L710	71	69.8	.69	5L960	96	94.8	.88
5L720	72	70.8	.69	5L970	97	95.8	.88
5L730	73	71.8	.69	5L980	98	96.8	.94
5L740	74	72.8	.69	5L990	99	97.8	.94
5L750	75	73.8	.69	5L1000	100	98.8	.94

“358” GRIPBELT®



3V
3/8" x 5/16"

5V
5/8" x 17/32"

8V
1" x 29/32"

Table 1 Specifications

Part No.	Outside Length	Wt. Lbs.	Part No.	Outside Length	Wt. Lbs.	Part No.	Outside Length	Wt. Lbs.
3VX250	25.0	.1	5VX570	57.0	.6	5VX1700	170.0	2.0
3VX265	26.5	.1	5VX580	58.0	.6	5VX1800	180.0	2.1
3VX280	28.0	.1	5VX590	59.0	.6	5VX1900	190.0	2.3
3VX300	30.0	.1	5VX600	60.0	.7	5VX2000	200.0	2.4
3VX315	31.5	.1	5VX610	61.0	.7	5V2120	212.0	2.4
3VX335	33.5	.1	5VX630	63.0	.7	5V2240	224.0	2.6
3VX355	35.5	.2	5VX650	65.0	.7	5V2360	236.0	2.8
3VX375	37.5	.2	5VX660	66.0	.8	5V2500	250.0	2.9
3VX400	40.0	.2	5VX670	67.0	.8	5V2650	265.0	3.2
3VX425	42.5	.2	5VX680	68.0	.8	5V2800	280.0	3.3
3VX450	45.0	.2	5VX690	69.0	.8	5V3000	300.0	3.6
3VX475	47.0	.2	5VX710	71.0	.8	5V3150	315.0	3.9
3VX500	50.0	.2	5VX730	73.0	.8	5V3350	335.0	4.0
3VX530	53.0	.2	5VX740	74.0	.8	5V3550	355.0	4.3
3VX560	56.0	.2	5VX750	75.0	.8	8V1000	100.0	3.3
3VX600	60.0	.3	5VX780	78.0	.8	8V1120	112.0	3.6
3VX630	63.0	.3	5VX800	80.0	.9	8V1180	118.0	3.8
3VX670	67.0	.3	5VX810	81.0	.9	8V1250	125.0	3.9
3VX710	71.0	.3	5VX830	83.0	.9	8V1320	132.0	4.3
3VX750	75.0	.3	5VX840	84.0	.9	8V1400	140.0	4.5
3VX800	80.0	.4	5VX850	85.0	.9	8V1500	150.0	4.8
3VX850	85.0	.4	5VX860	86.0	.9	8V1600	160.0	5.1
3VX900	90.0	.4	5VX880	88.0	.9	8V1700	170.0	5.6
3VX950	95.0	.4	5VX900	90.0	1.0	8V1800	180.0	6.0
3VX1000	100.0	.4	5VX930	93.0	1.0	8V1900	190.0	6.3
3VX1060	106.0	.4	5VX950	95.0	1.0	8V2000	200.0	6.5
3VX1120	112.0	.5	5VX960	96.0	1.0	8V2120	212.0	6.9
3VX1180	118.0	.5	5VX1000	100.0	1.1	8V2240	224.0	7.2
3VX1250	125.0	.6	5VX1030	103.0	1.1	8V2360	236.0	7.6
3VX1320	132.0	.6	5VX1060	106.0	1.2	8V2500	250.0	8.0
3VX1400	140.0	.6	5VX1080	108.0	1.2	8V2650	265.0	8.5
5VX450	45.0	.4	5VX1120	112.0	1.3	8V2800	280.0	8.9
5VX470	47.0	.5	5VX1150	115.0	1.3	8V3000	300.0	9.6
5VX490	49.0	.5	5VX1180	118.0	1.4	8V3150	315.0	10.3
5VX500	50.0	.6	5VX1230	123.0	1.4	8V3350	335.0	11.4
5VX510	51.0	.6	5VX1250	125.0	1.4	8V3550	355.0	12.4
5VX530	53.0	.6	5VX1320	132.0	1.5	8V4000	400.0	13.0
5VX540	54.0	.6	5VX1400	140.0	1.6	8V4500	450.0	14.4
5VX550	55.0	.6	5VX1500	150.0	1.8			
5VX560	56.0	.6	5VX1600	160.0	1.8			



Belts Cross-Reference

4L, A, AX Belts - Cross-Reference

Table 1

4L	A	AX	Length	4L	A	AX	Length
4L230	A21	AX21	-	4L630	A61	AX61	63.2
4L240	A22	AX22	-	4L640	A62	AX62	64.2
4L250	A23	AX23	-	4L650	A63	AX63	65.2
4L260	A24	AX24	-	4L660	A64	AX64	66.2
4L270	A25	AX25	26.2	4L670	A65	AX65	-
4L280	A26	AX26	28.2	4L680	A66	AX66	-
4L290	A27	AX27	-	4L690	A67	AX67	69.2
4L300	A28	AX28	30.2	4L700	A68	AX68	70.2
4L310	A29	AX29	-	4L710	A69	AX69	71.2
4L320	A30	AX30	-	4L720	A70	AX70	72.2
4L330	A31	AX31	33.2	4L730	A71	AX71	73.2
4L340	A32	AX32	-	4L740	A72	AX72	74.2
4L350	A33	AX33	35.2	4L750	A73	AX73	75.2
4L360	A34	AX34	36.2	4L760	A74	AX74	76.2
4L370	A35	AX35	37.2	4L770	A75	AX75	77.2
4L380	A36	AX36	38.2	4L780	A76	AX76	78.2
4L390	A37	AX37	39.2	4L790	A77	AX77	79.2
4L400	A38	AX38	40.2	4L800	A78	AX78	80.2
4L410	A39	AX39	41.2	4L810	A79	AX79	81.2
4L420	A40	AX40	42.2	4L820	A80	AX80	82.2
4L430	A41	AX41	43.0	4L830	A81	AX81	83.2
4L440	A42	AX42	44.2	4L840	A82	AX82	84.2
4L450	A43	AX43	45.2	4L850	A83	AX83	85.2
4L460	A44	AX44	46.2	4L860	A84	AX84	86.2
4L470	A45	AX45	47.2	4L870	A85	AX85	87.2
4L480	A46	AX46	48.2	4L880	A86	AX86	88.2
4L490	A47	AX47	49.2	4L890	A87	AX87	89.2
4L500	A48	AX48	50.2	4L900	A88	AX88	90.2
4L510	A49	AX49	51.2	4L910	A89	AX89	91.2
4L520	A50	AX50	52.2	4L920	A90	AX90	92.2
4L530	A51	AX51	53.2	4L930	A91	AX91	93.2
4L540	A52	AX52	54.2	4L940	A92	AX92	94.2
4L550	A53	AX53	55.2	4L950	A93	AX93	95.2
4L560	A54	AX54	56.2	4L960	A94	AX94	96.2
4L570	A55	AX55	57.2	4L970	A95	AX95	97.2
4L580	A56	AX56	58.2	4L980	A96	AX96	98.2
4L590	A57	AX57	59.2	4L990	A97	AX97	99.2
4L600	A58	AX58	60.2	4L1000	A98	AX98	100.2
4L610	A59	AX59	61.2	-	A99	AX99	101.2
4L620	A60	AX60	62.2	-	A100	AX100	102.2



Belts Cross-Reference

5L, B, BX Belts - Cross-Reference

Table 1

5L	B	BX	Length	5L	B	BX	Length
5L310	B28	BX28	31.0	5L680	B65	BX65	68.0
5L320	B29	-	-	5L690	B66	BX66	69.0
5L330	B30	-	-	5L700	B67	BX67	70.0
5L340	B31	-	-	5L710	B68	BX68	71.0
5L350	B32	BX32	35.0	5L720	B69	BX69	-
5L360	B33	-	-	5L730	B70	BX70	73.0
5L370	B34	BX34	37.0	5L740	B71	BX71	74.0
5L380	B35	BX35	38.0	5L750	B72	BX72	75.0
5L390	B36	BX36	39.0	5L760	B73	BX73	76.0
5L400	B37	-	-	5L770	B74	BX74	77.0
5L410	B38	BX38	41.0	5L780	B75	BX75	78.0
5L420	B39	-	-	5L790	B76	BX76	79.0
5L430	B40	BX40	43.0	5L800	B77	BX77	80.0
5L440	B41	BX41	44.0	5L810	B78	BX78	81.0
5L450	B42	BX42	45.0	5L820	B79	BX79	82.0
5L460	B43	BX43	46.0	5L830	B80	BX80	83.0
5L470	B44	BX44	47.0	5L840	B81	BX81	84.0
5L480	B45	BX45	48.0	5L850	B82	BX82	85.0
5L490	B46	BX46	49.0	5L860	B83	BX83	86.0
5L500	B47	BX47	50.0	5L870	B84	BX84	87.0
5L510	B48	BX48	51.0	5L880	B85	BX85	88.0
5L520	B49	BX49	52.0	5L890	B86	BX86	89.0
5L530	B50	BX50	53.0	5L900	B87	BX87	90.0
5L540	B51	BX51	54.0	5L910	B88	BX88	91.0
5L550	B52	BX52	55.0	5L920	B89	BX89	92.0
5L560	B53	BX53	56.0	5L930	B90	BX90	93.0
5L570	B54	BX54	57.0	5L940	B91	BX91	94.0
5L580	B55	BX55	58.0	5L950	B92	BX92	95.0
5L590	B56	BX56	59.0	5L960	B93	BX93	96.0
5L600	B57	BX57	60.0	5L970	B94	BX94	97.0
5L610	B58	BX58	61.0	5L980	B95	BX95	98.0
5L620	B59	BX59	62.0	5L990	B96	BX96	99.0
5L630	B60	BX60	63.0	5L1000	B97	BX97	100.0
5L640	B61	BX61	64.0	-	B98	BX98	101.0
5L650	B62	BX62	65.0	-	B99	BX99	102.0
5L660	B63	BX63	66.0	-	B100	BX100	103.0
5L670	B64	BX64	67.0				

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- **Cast Iron Sheaves** - Over 3000 AK/BK size and bore combinations in stock, in-shaft ready bushing type and finished bore.
- **Variable Speed Sheaves** - through 750 HP, precision balanced to provide smooth vibration-free performance.



B5V® Sheaves



*Variable Speed Sheaves
VP, VL, VM*

*Cast Iron Sheaves
AK, 2AK, AKH, 2AKH
BK, 2BK, BKH, 2BKH*



"H" Bushing

Cast Iron Sheaves

Single Groove Sheaves for "4L" or "A" Belts

"3L" Belts may also be used with these sheaves as indicated in table below.

Table 1 Stock Sizes - Finished Bore

Part No.	Diameters		Type	Stock Bores Marked "x"										Wt. Lbs.				
	Outside	Datum "A"		Pitch "3L"	1/2"	5/8"	3/4"	7/8"	15/16"	1"	1 1/8"	1 3/16"	1 1/4"		1 3/8"	1 7/16"		
▲AK17	1.75"	1.50"	1.16"	1	X	X	-	-	-	-	-	-	-	-	-	-	-	.2
▲AK20	2.00	1.80	1.46	1	X	X	X	-	-	-	-	-	-	-	-	-	-	.3
▲AK21	2.10	1.90	1.56	1	X	X	X	-	-	-	-	-	-	-	-	-	-	.4
▲AK22	2.20	2.00	1.66	1	X	X	X	-	-	-	-	-	-	-	-	-	-	.5
▲AK23	2.30	2.10	1.76	1	X	X	X	-	-	-	-	-	-	-	-	-	-	.5
▲AK25	2.50	2.30	1.96	2	X	X	X	-	-	-	-	-	-	-	-	-	-	.5
▲AK26	2.60	2.40	2.06	2	X	X	X	-	-	-	-	-	-	-	-	-	-	.5
▲AK27	2.70	2.50	2.16	2	X	X	X	-	-	-	-	-	-	-	-	-	-	.6
▲AK28	2.80	2.60	2.26	2	X	X	X	-	-	-	-	-	-	-	-	-	-	.7
▲AK30	3.05	2.80	2.46	2	X	X	X	X	-	-	-	-	-	-	-	-	-	.7
▲AK32	3.25	3.00	2.66	2	X	X	X	X	-	-	-	-	-	-	-	-	-	.7
▲AK34	3.45	3.20	2.86	2	X	X	X	X	-	-	-	-	-	-	-	-	-	.9
AK39	3.75	3.50	3.16	2	X	X	X	X	X	-	-	-	-	-	-	-	-	1.4
AK41	3.95	3.70	3.36	2	X	X	X	X	X	X	-	-	-	-	-	-	-	1.5
AK44	4.25	4.00	3.66	3	X	X	X	X	X	X	X	-	-	-	-	-	-	1.5
AK46	4.45	4.20	3.86	3	X	X	X	X	X	X	X	X	-	-	-	-	-	1.5
AK49	4.75	4.50	4.16	3	X	X	X	X	X	X	X	X	X	-	-	-	-	1.7
AK51	4.95	4.70	4.36	3	X	X	X	X	X	X	X	X	X	X	-	-	-	1.7
AK54	5.25	5.00	4.66	3	X	X	X	X	X	X	X	X	X	X	X	-	-	1.8
AK56	5.45	5.20	4.86	3	X	X	X	X	X	X	X	X	X	X	X	X	-	1.9

▲NOTE - Do Not Use These "AK" Sheaves With Bores 1" And Under With Gripnotch Belt Ratings.

Cast Iron Sheaves

Single Groove Sheaves for "4L" or "A" Belts (continued)

"3L" Belts may also be used with these sheaves as indicated in table below.

Table 1 Stock Sizes - Finished Bore (continued)

Part No.	Diameters		Type	Stock Bore Marked "x"										Wt. Lbs.				
	Outside	Datum "A"		Pitch "3L"	1/2"	5/8"	3/4"	7/8"	15/16"	1"	1 1/8"	1 3/16"	1 1/4"		1 3/8"	1 7/16"		
AK59	5.75	5.50	5.16	3	X	X	X	X	X	X	X	X	X	X	X	-	-	2.0
AK61	5.95	5.70	5.36	3	X	X	X	X	X	X	X	X	X	X	X	-	-	2.1
AK64	6.25	6.00	5.66	3	X	X	X	X	X	X	X	X	X	X	X	-	-	2.2
AK66	6.45	6.20	5.86	3	-	X	X	X	X	X	X	X	X	X	X	-	-	2.3
AK69	6.75	6.50	6.16	3	-	X	X	X	X	X	X	X	X	X	X	-	-	3.5
AK71	6.95	6.70	6.36	3	-	X	X	X	X	X	X	X	X	X	X	-	-	3.8
▲AK74	7.25	7.00	6.66	3	X	X	X	X	X	X	X	X	X	X	X	X	X	3.4
▲AK79	7.75	7.50	7.16	3	-	X	X	X	X	X	X	X	X	X	X	-	-	4.0
▲AK84	8.25	8.00	7.66	3	X	X	X	X	X	X	X	X	X	X	X	-	-	3.8
▲AK89	8.75	8.50	8.16	3	-	X	X	X	X	X	X	X	X	X	X	-	-	4.3
▲AK94	9.25	9.00	8.66	3	X	X	X	X	X	X	X	X	X	X	X	-	-	4.5
▲AK99	9.75	9.50	9.16	3	-	X	X	X	X	X	X	X	X	X	X	-	-	5.3
▲AK104	10.25	10.00	9.66	3	-	X	X	X	X	X	X	X	X	X	X	-	-	5.1
▲AK109	10.75	10.50	10.16	3	-	X	X	X	X	X	X	X	X	X	X	-	-	5.8
▲AK114	11.25	11.00	10.66	3	-	X	X	X	X	X	X	X	X	X	X	-	-	5.6
▲AK124	12.25	12.00	11.66	3	-	X	X	X	X	X	X	X	X	X	X	-	-	6.5
AK134	13.25	13.00	12.66	3	-	X	X	X	X	X	X	X	X	X	X	-	-	7.5
AK144	14.25	14.00	13.66	3	-	X	X	X	X	X	X	X	X	X	X	-	-	8.5
AK154	15.25	15.00	14.66	3	-	X	X	X	X	X	X	X	X	X	X	-	-	9.8
AK184	18.25	18.00	17.66	3	-	X	X	X	X	X	X	X	X	X	X	-	-	12.1

▲NOTE - Do Not Use These "AK" Sheaves With Bore 1" And Under With Gripnotch Belt Ratings.

Cast Iron Sheaves

Two Groove Sheaves for "4L" or "A" Belts
 "3L" Belts may also be used with these sheaves as indicated in table below.

Table 1 Stock Sizes - Finished Bore

Part No.	Diameters		Pitch "3L"	Type	Stock Bores Marked "x"										Wt. Lbs.		
	Outside	Datum "A"			1/2"	5/8"	3/4"	7/8"	15/16"	1"	1 1/8"	1 3/16"	1 3/8"	1 7/16"			
2AK20	2.00"	1.80"	1.46"	1	X	X	-	-	-	-	-	-	-	-	-	-	.8
2AK21	2.15	1.90	1.56	1	X	X	-	-	-	-	-	-	-	-	-	-	.9
2AK22	2.25	2.00	1.66	1	X	X	X	-	-	-	-	-	-	-	-	-	.9
2AK23	2.35	2.10	1.76	1	-	X	X	-	-	X	-	-	-	-	-	-	1.1
2AK25	2.55	2.30	1.96	1	-	X	X	-	-	X	-	-	-	-	-	-	1.3
2AK26	2.65	2.40	2.06	1	-	X	X	-	-	X	-	-	-	-	-	-	1.4
2AK27	2.75	2.50	2.16	1	-	X	X	-	-	X	-	-	-	-	-	-	1.5
2AK28	2.85	2.60	2.26	1	-	X	X	-	-	X	-	-	-	-	-	-	1.8
2AK30	3.05	2.80	2.46	1	X	X	X	-	-	X	X	-	-	-	-	-	1.8
2AK32	3.25	3.00	2.66	1	-	X	X	-	-	X	X	-	-	-	-	-	2.1
2AK34	3.45	3.20	2.86	1	-	X	X	-	-	X	X	-	-	-	-	-	2.3
2AK39	3.75	3.50	3.16	2	-	X	X	-	-	X	X	-	-	-	-	-	2.6
2AK41	3.95	3.70	3.36	2	-	X	X	-	-	X	X	-	-	-	-	-	2.9
2AK44	4.25	4.00	3.66	2	-	X	X	-	-	X	X	-	-	-	-	-	3.0
2AK46	4.45	4.20	3.86	2	-	-	X	-	-	X	X	-	-	-	-	-	3.1
2AK49	4.75	4.50	4.16	2	-	-	X	-	-	X	X	-	-	-	X	-	3.6

Cast Iron Sheaves

Two Groove Sheaves for "4L" or "A" Belts (continued)

"3L" Belts may also be used with these sheaves as indicated in table below.

Table 1 Stock Sizes - Finished Bore (continued)

Part No.	Diameters			Type	Stock Bores Marked "x"										Wt. Lbs.
	Outside	Datum "A"	Pitch "3L"		1/2"	5/8"	3/4"	7/8"	15/16"	1"	1 1/8"	1 3/16"	1 3/8"	1 7/16"	
					-	-	X	X	-	X	X	X	X	X	
2AK51	4.95	4.70	4.36	2	-	-	X	X	-	X	-	X	-	-	3.8
2AK54	5.25	5.00	4.66	3	-	X	X	-	X	X	-	X	-	-	3.3
2AK56	5.45	5.20	4.86	3	-	X	-	-	X	X	-	X	-	-	3.4
2AK59	5.75	5.50	5.16	3	-	-	-	-	X	X	-	X	-	-	3.5
2AK61	5.95	5.70	5.36	3	-	-	X	-	X	X	-	X	-	-	3.6
2AK64	6.25	6.00	5.66	3	-	-	-	-	X	X	X	X	X	X	4.8
2AK74	7.25	7.00	6.66	3	-	-	-	-	X	X	X	X	X	X	5.6
2AK84	8.25	8.00	7.66	3	-	-	-	X	X	X	X	X	X	X	6.4
2AK94	9.25	9.00	8.66	3	-	-	-	-	X	X	X	X	X	X	7.3
2AK104	10.25	10.00	9.66	3	-	-	-	X	X	X	-	-	X	X	8.1
2AK114	11.25	11.00	10.66	3	-	-	-	-	X	X	X	X	X	X	9.0
2AK124	12.25	12.00	11.66	3	-	-	-	-	X	X	X	X	X	X	9.8
2AK134	13.25	13.00	12.66	3	-	-	-	-	-	-	X	X	X	X	12.3
2AK144	14.25	14.00	13.66	3	-	-	-	-	-	X	-	-	-	X	13.9
2AK154	15.25	15.00	14.66	3	-	-	-	-	-	-	X	-	-	X	14.3
2AK184	18.25	18.00	17.66	3	-	-	-	-	-	-	-	-	-	X	17.4

Cast Iron Sheaves

Single Groove Sheaves for "4L" or "A" Belts

"3L" Belts may be used with these sheaves as indicated in table below.

Table 1 Stock Sizes - with Split Taper Bushings

Part No.	Diameter			Type	Wt. Less Bush
	O. D.	Datum "A"	Pitch "3L"		
AK30H	3.05"	2.80"	2.46"	1	1.1
AK32H	3.25	3.00	2.66	1	1.2
AK34H	3.45	3.20	2.86	2	1.0
AK39H	3.75	3.50	3.16	2	1.4
AK41H	3.95	3.70	3.36	2	1.6
AK44H	4.25	4.00	3.66	2	1.9
AK46H	4.45	4.20	3.86	2	1.9
AK49H	4.75	4.50	4.16	2	2.1
AK51H	4.95	4.70	4.36	2	2.3
AK54H	5.25	5.00	4.66	2	2.0
AK56H	5.45	5.20	4.86	2	2.3
AK59H	5.75	5.50	5.16	2	2.4
AK61H	5.95	5.70	5.36	3	2.5
AK64H	6.25	6.00	5.66	3	2.7
AK66H	6.45	6.20	5.86	3	2.8
AK69H	6.75	6.50	6.16	3	3.2
AK71H	6.95	6.70	6.36	3	3.1
AK74H	7.25	7.00	6.66	3	3.3
AK79H	7.75	7.50	7.16	3	3.5
AK84H	8.25	8.00	7.66	3	3.6
AK89H	8.75	8.50	8.16	3	4.0
AK94H	9.25	9.00	8.66	3	4.4
AK99H	9.75	9.50	9.16	3	4.7
AK104H	10.25	10.00	9.66	3	4.5
AK109H	10.75	10.50	10.16	3	5.1
AK114H	11.25	11.00	10.66	3	5.5
AK124H	12.25	12.00	11.66	3	6.1
AK134H	13.25	13.00	12.66	3	7.4
AK144H	14.25	14.00	13.66	3	7.8
AK154H	15.25	15.00	14.66	3	8.8
AK184H	18.25	18.00	17.66	3	11.3

Table 2 Stock "H" Bushings

Inch Bores		Millimeter Bores		Stock Spline Bores	
Stock Bores	Keyseat	Stock Bores	Keyseat	Stock Bores	Keyseat
3/8", 7/16	None	10 mm	None	.978 - 10 Inv.	X
1/2, 9/16	1/8" x 1/16"	11, 12	None	1 1/8 - 6B	X
5/8, 11/16, 3/4	3/16 x 3/32	14	5 mm x 2.5 mm	1 3/8 - 6B	X
13/16, 7/8, 15/16	3/16 x 3/32	16	5 x 2.5	1 3/8 - 21 Inv.	X
1, 1 1/16	1/4 x 1/8	18, 19, 20, 22	6 x 3		
1 1/8, 1 3/16	1/4 x 1/8	24, 25, 28, 30	8 x 3.5		
1 1/4	1/4 x 1/16*	32, 35, 36, 38	10 x 4		
1 5/16, 1 3/8	5/16 x 1/16*				
1 3/8, 1 7/16, 1 1/2	3/8 x 1/16*				

Part Numbers are specified by "H" and bore size. Example: "H-1 1/8"

*These sizes are furnished with special keys to fit standard depth keyseats.

Cast Iron Sheaves

Two Groove Sheaves for "4L" or "A" Belts (continued)

"3L" Belts may be used with these sheaves as indicated in table below.

Table 1 Stock Sizes - with Split Taper Bushings

Part No.	DIAMETER			Type	Wt. Less Bush
	O. D.	Datum "A"	Pitch "3L"		
2AK30H	3.05"	2.80"	2.46"	1	1.4
2AK32H	3.25	3.00	2.66	1	1.7
2AK34H	3.45	3.20	2.86	1	1.8
2AK39H	3.75	3.50	3.16	1	1.8
2AK41H	3.95	3.70	3.36	2	1.9
2AK44H	4.25	4.00	3.66	2	2.4
2AK46H	4.45	4.20	3.86	2	2.5
2AK49H	4.75	4.50	4.16	2	3.1
2AK51H	4.95	4.70	4.36	2	3.2
2AK54H	5.25	5.00	4.66	2	3.4
2AK56H	5.45	5.20	4.86	2	3.6
2AK59H	5.75	5.50	5.16	3	3.4
2AK61H	5.95	5.70	5.36	3	3.3
2AK64H	6.25	6.00	5.66	3	3.9
2AK74H	7.25	7.00	6.66	3	4.9
2AK84H	8.25	8.00	7.66	3	5.8
2AK94H	9.25	9.00	8.66	3	6.1
2AK104H	10.25	10.00	9.66	3	7.7
2AK114H	11.25	11.00	10.66	3	8.5
2AK124H	12.25	12.00	11.66	3	9.5
2AK134H	13.25	13.00	12.66	3	11.4
2AK144H	14.25	14.00	13.66	3	11.9
2AK154H	15.25	15.00	14.66	3	13.3
2AK184H	18.25	18.00	17.66	3	16.8

Table 2 Stock "H" Bushings

Inch Bores		Millimeter Bores		Stock Spline Bores	
Stock Bores	Keyseat	Stock Bores	Keyseat	Stock Bores	Keyseat
3/8", 7/16	None	10 mm,	None	.978 - 10 Inv.	X
1/2, 9/16	1/8" x 1/16"	11, 12	None	1 1/8 - 6B	X
5/8, 11/16, 3/4	3/16 x 3/32	14, 16	5 mm x 2.5 mm	1 3/8 - 6B	X
13/16, 7/8	3/16 x 3/32	18, 19, 20, 22	6 x 3	1 3/8 - 21 Inv.	X
15/16, 1, 1 1/16	1/4 x 1/8	24, 25, 28, 30	8 x 3.5		
1 1/8, 1 3/16	1/4 x 1/8	32, 35, 36, 38	10 x 4		
1 1/4	1/4 x 1/16*				
1 5/16, 1 3/8	5/16 x 1/16*				
1 3/8, 1 7/16, 1 1/2	3/8 x 1/16*				

Part Numbers are specified by "H" and bore size. Example: "H-1 1/8"

*These sizes are furnished with special keys to fit standard depth keyseats.

Cast Iron Sheaves

Single Groove Sheaves Combination Groove for "4L" or "A" Belts and "5L" or "B" Belts

Table 1 Stock Sizes - Finished Bore

Part No.	Diameters		Type	Stock Bores Marked "x"										Wt. Lbs.		
	Outside	Datum "A"		Datum "B"	1/2"	5/8"	3/4"	7/8"	15/16"	1"	1 1/8"	1 3/16"	1 1/4"		1 3/8"	1 7/16"
▲BK24	2.40"	1.80"	2.20"	1	X	X	X	X	-	-	-	-	-	-	-	.4
▲BK25	2.50	1.90	2.30	1	X	X	X	X	-	-	-	-	-	-	-	.5
▲BK26	2.60	2.00	2.40	1	X	X	X	X	-	-	-	-	-	-	-	.6
▲BK27	2.70	2.10	2.50	2	X	X	X	X	-	-	-	-	-	-	-	.6
▲BK28	2.95	2.20	2.60	2	X	X	X	X	-	-	-	-	-	-	-	.8
▲BK30	3.15	2.40	2.80	2	X	X	X	X	-	-	-	-	-	-	-	.8
▲BK32	3.35	2.60	3.00	2	X	X	X	X	-	-	-	-	-	-	-	.8
BK34	3.55	2.80	3.20	2	X	X	X	X	X	X	-	-	-	-	-	1.3
BK36	3.75	3.00	3.40	2	X	X	X	X	X	X	-	-	-	-	-	1.5
BK40	3.95	3.20	3.60	2	X	X	X	X	X	X	-	-	-	-	-	1.5
BK45	4.25	3.50	3.90	2	X	X	X	X	X	X	-	-	-	-	-	1.8
BK47	4.45	3.70	4.10	2	X	X	X	X	X	X	-	-	-	-	-	1.9
BK50	4.75	4.00	4.40	3	X	X	X	X	X	X	X	-	-	-	-	2.0
BK52	4.95	4.20	4.60	3	X	X	X	X	X	X	X	-	-	-	-	2.0
BK55	5.25	4.50	4.90	3	X	X	X	X	X	X	X	X	-	-	-	2.2
BK57	5.45	4.70	5.10	3	-	X	X	X	X	X	X	X	-	-	-	2.3
BK60	5.75	5.00	5.40	3	X	X	X	X	X	X	X	X	X	-	-	2.3
BK62	5.95	5.20	5.60	3	X	X	X	X	X	X	X	X	X	-	-	2.4
BK65	6.25	5.50	5.90	3	-	X	X	X	X	X	X	X	X	-	-	2.7

▲NOTE - Do Not Use These "BK" Sheaves With "B" Gripnotch Belt Ratings.

Cast Iron Sheaves

Single Groove Sheaves (continued) Combination Groove for "4L" or "A" Belts and "5L" or "B" Belts

Table 1 Stock Sizes - Finished Bore (continued)

Part No.	Diameters		Type	Stock Bores Marked "X"										Wt. Lbs.		
	Outside	Datum "A"		Datum "B"	1/2"	5/8"	3/4"	7/8"	15/16"	1"	1 1/8"	1 3/16"	1 1/4"		1 3/8"	1 7/16"
BK67	6.45	5.70	6.10	3	-	X	X	-	-	X	-	-	X	-	-	2.8
BK70	6.75	6.00	6.40	3	-	X	X	X	X	X	X	-	-	X	X	3.3
BK72	6.95	6.20	6.60	3	-	-	X	-	-	X	-	-	X	-	-	3.9
BK75	7.25	6.50	6.90	3	-	-	X	-	-	X	-	-	X	-	-	3.9
BK77	7.45	6.70	7.10	3	-	-	X	-	-	X	-	-	X	-	-	4.1
BK80	7.75	7.00	7.40	3	-	X	X	X	X	X	X	X	X	X	X	4.4
BK85	8.25	7.50	7.90	3	-	-	X	-	-	X	-	-	X	-	-	5.0
BK90	8.75	8.00	8.40	3	-	-	X	X	X	X	X	X	X	X	X	5.0
BK95	9.25	8.50	8.90	3	-	-	X	-	-	X	-	-	X	-	-	5.4
BK100	9.75	9.00	9.40	3	-	-	X	X	X	X	X	X	X	X	X	5.6
BK105	10.25	9.50	9.90	3	-	-	-	-	-	-	-	-	-	-	-	5.8
BK110	10.75	10.00	10.40	3	-	-	X	-	-	X	-	-	X	-	-	6.4
BK115	11.25	10.50	10.90	3	-	-	-	-	-	-	-	-	X	-	-	6.9
BK120	11.75	11.00	11.40	3	-	-	X	-	-	X	-	-	X	-	-	7.4
BK130	12.75	12.00	12.40	3	-	-	X	-	-	X	-	-	X	-	-	8.4
BK140	13.75	13.00	13.40	3	-	-	X	-	-	X	-	-	X	-	-	9.4
BK160	15.75	15.00	15.40	3	-	-	-	-	-	-	-	-	X	-	-	11.4
BK190	18.75	18.00	18.40	3	-	-	-	-	-	-	-	-	X	-	-	13.4

▲NOTE - Do Not Use These "BK" Sheaves With "B" Gripnotch Belt Ratings.

Cast Iron Sheaves

Two Groove Sheaves Combination Groove for "4L" or "A" Belts and "5L" or "B" Belts

Table 1 Stock Sizes - Finished Bore

Part No.	Diameters			Type	Stock Bores Marked "x"										Wt. Lbs.	
	Outside	Datum "A"	Datum "B"		1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 3/16"	1 3/8"	1 7/16"			
		1.90"	2.10"		2.30"	X	X	X	X	X	X	X	X	X		X
2BK25	2.50"	1.90"	2.30"	1	X	X	X	X	-	X	-	-	-	-	-	1.3
2BK27	2.70	2.10	2.50	1	X	X	X	X	X	X	-	-	-	-	-	1.6
2BK28	2.95	2.20	2.60	1	X	X	X	X	X	X	X	-	-	-	-	1.9
2BK30	3.15	2.40	2.80	1	X	X	X	X	X	X	X	-	-	-	-	2.3
2BK32	3.35	2.60	3.00	1	X	X	X	X	X	X	X	-	-	-	-	2.6
2BK34	3.55	2.80	3.20	1	-	X	X	X	X	X	X	-	-	-	-	2.8
2BK36	3.75	3.00	3.40	1	-	X	X	X	X	X	X	-	-	-	-	3.3
2BK40	3.95	3.20	3.60	2	-	X	X	X	X	X	X	-	-	-	-	3.3
2BK45	4.25	3.50	3.90	2	-	-	X	X	X	X	X	-	-	-	-	3.7
2BK47	4.45	3.70	4.10	2	-	-	X	X	X	X	X	-	-	-	-	4.1
2BK50	4.75	4.00	4.40	2	-	-	X	X	X	X	X	-	-	-	-	4.5
2BK52	4.95	4.20	4.60	2	-	-	X	X	X	X	X	-	-	-	-	4.5
2BK55	5.25	4.50	4.90	2	-	-	-	X	X	X	X	-	-	-	-	5.1
2BK57	5.45	4.70	5.10	2	-	-	-	X	X	X	X	-	-	-	-	4.9
2BK60	5.75	5.00	5.40	3	-	-	-	X	X	X	X	-	-	-	-	4.8
2BK62	5.95	5.20	5.60	3	-	-	-	-	X	X	X	-	-	-	-	5.0
2BK65	6.25	5.50	5.90	3	-	-	-	-	-	X	X	-	-	-	-	6.6
2BK67	6.45	5.70	6.10	3	-	-	-	-	-	X	X	-	-	-	-	7.2
2BK70	6.75	6.00	6.40	3	-	-	-	-	-	X	X	-	-	-	-	8.4
2BK80	7.75	7.00	7.40	3	-	-	-	-	-	X	X	-	-	-	-	9.4
2BK90	8.75	8.00	8.40	3	-	-	-	-	-	X	X	-	-	-	-	10.4
2BK100	9.75	9.00	9.40	3	-	-	-	-	-	X	X	-	-	-	-	11.8
2BK110	10.75	10.00	10.40	3	-	-	-	-	-	X	X	-	-	-	-	14.9
2BK120	11.75	11.00	11.40	3	-	-	-	-	-	X	X	-	-	-	-	16.3
2BK130	12.75	12.00	12.40	3	-	-	-	-	-	X	X	-	-	-	-	18.0
2BK140	13.75	13.00	13.40	3	-	-	-	-	-	X	X	-	-	-	-	23.3
2BK160	15.75	15.00	15.40	3	-	-	-	-	-	X	X	-	-	-	-	
2BK190	18.75	18.00	18.40	3	-	-	-	-	-	-	-	-	-	-	-	

Cast Iron Sheaves

Single Groove Sheaves Combination Groove for "4L" or "A" Belts and "5L" or B" Belts

Table 1 Stock Sizes - with Split Taper Bushings

Part No.	Diameters			Type	Wt. Lbs. Less Bush.
	O.D.	Datum "A"	Datum "B"		
BK30H	3.15"	2.40"	2.80"	1	1.2
BK32H	3.35	2.60	3.00	1	1.4
BK34H	3.55	2.80	3.20	1	1.6
BK36H	3.75	3.00	3.40	2	1.2
BK40H	3.95	3.20	3.60	2	1.4
BK45H	4.25	3.50	3.90	2	1.8
BK47H	4.45	3.70	4.10	2	2.2
BK50H	4.75	4.00	4.40	2	2.0
BK52H	4.95	4.20	4.60	2	2.1
BK55H	5.25	4.50	4.90	2	2.7
BK57H	5.45	4.70	5.10	2	2.7
BK60H	5.75	5.00	5.40	2	2.5
BK62H	5.95	5.20	5.60	2	2.6
BK65H	6.25	5.50	5.90	2	2.8
BK67H	6.45	5.70	6.10	2	2.9
BK70H	6.75	6.00	6.40	3	2.8
BK72H	6.95	6.20	6.60	3	3.1
BK75H	7.25	6.50	6.90	3	3.3
BK77H	7.45	6.70	7.10	3	3.8
BK80H	7.75	7.00	7.40	3	3.4
BK85H	8.25	7.50	7.90	3	3.8
BK90H	8.75	8.00	8.40	3	4.3
BK95H	9.25	8.50	8.90	3	5.0
BK100H	9.75	9.00	9.40	3	5.2
BK105H	10.25	9.50	9.90	3	5.5
BK110H	10.75	10.00	10.40	3	6.0
BK115H	11.25	10.50	10.90	3	6.4
BK120H	11.75	11.00	11.40	3	6.9
BK130H	12.75	12.00	12.40	3	6.9
BK140H	13.75	13.00	13.40	3	8.5
BK150H	14.75	14.00	14.40	3	9.5
BK160H	15.75	15.00	15.40	3	9.8
BK190H	18.75	18.00	18.40	3	12.8

Table 2 Stock "H" Bushings

Inch Bores		Millimeter Bores		Stock Spline Bores	
Stock Bores	Keyseat	Stock Bores	Keyseat	Stock Bores	Keyseat
3/8", 7/16	None	10 mm,	None	.978 - 10 Inv.	X
1/2, 9/16	1/8" x 1/16"	11, 12	None	1 1/8 - 6B	X
5/8, 11/16, 3/4	3/16 x 3/32	14, 16	5 mm x 2.5 mm	1 3/8 - 6B	X
13/16, 7/8	3/16 x 3/32	18, 19, 20, 22	6 x 3	1 3/8 - 21 Inv.	X
15/16, 1, 1 1/16	1/4 x 1/8	24, 25, 28, 30	8 x 3.5		
1 1/8, 1 3/16	1/4 x 1/8	32, 35, 36, 38	10 x 4		
1 1/4	1/4 x 1/16*				
1 5/16, 1 3/8	5/16 x 1/16*				
1 3/8, 1 7/16, 1 1/2	3/8 x 1/16*				

Part Numbers are specified by "H" and bore size. Example: "H-1 1/8"

*These sizes are furnished with special keys to fit standard depth keyseats.

Cast Iron Sheaves

**Two Groove Sheaves
Combination Groove
for "4L" or "A" Belts and "5L" or B" Belts**

Table 1 Stock Sizes - with Split Taper Bushings

Part No.	Diameters			Type	Wt. Lbs Less Bush
	O. D.	Datum "A"	Datum "B"		
2BK32H	3.35"	2.60"	3.00"	1	2.1
2BK34H	3.55	2.80	3.20	1	2.4
2BK36H	3.75	3.00	3.40	1	2.0
2BK40H	3.95	3.20	3.60	1	2.4
2BK45H	4.25	3.50	3.90	1	3.0
2BK47H	4.45	3.70	4.10	2	2.8
2BK50H	4.75	4.00	4.40	2	3.3
2BK52H	4.95	4.20	4.60	2	3.6
2BK55H	5.25	4.50	4.90	2	3.9
2BK57H	5.45	4.70	5.10	2	4.3
2BK60H	5.75	5.00	5.40	2	4.4
2BK62H	5.95	5.20	5.60	2	4.5
2BK65H	6.25	5.50	5.90	3	4.5
2BK67H	6.45	5.70	6.10	3	5.0
2BK70H	6.75	6.00	6.40	3	5.1
2BK80H	7.75	7.00	7.40	3	6.4
2BK90H	8.75	8.00	8.40	3	7.6
2BK100H	9.75	9.00	9.40	3	8.4
2BK110H	10.75	10.00	10.40	3	9.3
2BK120H	11.75	11.00	11.40	3	11.0
2BK130H	12.75	12.00	12.40	3	13.1
2BK140H	13.75	13.00	13.40	3	14.8
2BK160H	15.75	15.00	15.40	3	17.5
2BK190H	18.75	18.00	18.40	3	21.5

Table 2 Stock "H" Bushings

Inch Bores		Millimeter Bores		Stock Spline Bores	
Stock Bores	Keyseat	Stock Bores	Keyseat	Stock Bores	Keyseat
3/8", 7/16	None	10 mm,	None	.978 - 10 Inv.	X
1/2, 9/16	1/8" x 1/16"	11, 12	None	1 1/8 - 6B	X
5/8, 11/16, 3/4	3/16 x 3/32	14, 16	5 mm x 2.5 mm	1 3/8 - 6B	X
13/16, 7/8	3/16 x 3/32	18, 19, 20, 22	6 x 3	1 3/8 - 21 Inv.	X
15/16, 1, 1 1/16	1/4 x 1/8	24, 25, 28, 30	8 x 3.5		
1 1/8, 1 3/16	1/4 x 1/8	32, 35, 36, 38	10 x 4		
1 1/4	1/4 x 1/16*				
1 5/16, 1 3/8	5/16 x 1/16*				
1 3/8, 1 7/16, 1 1/2	3/8 x 1/16*				

Part Numbers are specified by "H" and bore size. Example: "H-1 1/8"

*These sizes are furnished with special keys to fit standard depth keyseats.



Stock Sheave Interchange

Sheaves for "4L", "A", "5L" or B" Belts

4L or A	5L or B	BROWNING	Other Manufacturers			
			Maurey	T. B. Wood's	Dodge	Maska
2.4	2.8	BK 30H	-	HB 31 QT	BK 30H	MBL 31
2.6	3.0	BK 32H	-	HB 33 QT	BK 32H	MBL 33
2.8	3.2	BK 34H	-	HB 35 QT	BK 34H	MBL 35
3.0	3.4	BK 36H	-	HB 37 QT	BK 36H	MBL 37
3.2	3.6	BK 40H	BH 40	HB 39 QT	BK 40H	MBL 39
3.5	3.9	BK 45H	BH 42	HB 42 QT	BK 45H	MBL 42
3.7	4.1	BK 47H	BH 44	HB 44 QT	BK 47H	MBL 44
-	-	BK 49H	BH 48	HB 47 QT	BK 49H	MBL 47
4.2	4.6	BK 52H	BH 50	HB 49 QT	BK 52H	MBL 49
4.5	4.9	BK 55H	BH 52	HB 52 QT	BK 55H	MBL 52
4.7	5.1	BK 57H	BH 54	HB 54 QT	BK 57H	MBL 54
5.0	5.4	BK 60H	BH 58	HB 57 QT	BK 60H	MBL 57
5.2	5.6	BK 62H	BH 60	HB 59 QT	BK 62H	MBL 59
5.5	5.9	BK 65H	BH 66	HB 62 QT	BK 65H	MBL 62
5.7	6.1	BK 67H	BH 68	HB 64 QT	BK 67H	MBL 64
6.0	6.4	BK 70H	BH 70	HB 67 QT	BK 70H	MBL 67
6.2	6.6	BK 72H	BH 72	HB 69 QT	BK 72H	MBL 69
6.5	6.9	BK 75H	-	HB 72 QT	BK 75H	MBL 72
6.7	7.1	BK 77H	-	HB 74 QT	BK 77H	MBL 74
7.0	7.4	BK 80H	BH 78	HB 77 QT	BK 80H	MBL 77
7.5	7.9	BK 85H	-	HB 82 QT	BK 85H	MBL 82
8.0	8.4	BK 90H	-	HB 87 QT	BK 90H	MBL 87
8.5	8.9	BK 95H	-	HB 92 QT	BK 95H	MBL 92
9.0	9.4	BK 100H	BH 98	HB 97 QT	BK 100H	MBL 97
9.5	9.9	BK 105H	-	HB 102 QT	BK 105H	MBL 102
10.0	10.4	BK 110H	BH 108	HB 107 QT	BK 110H	MBL 107
10.5	10.9	BK 115H	-	HB 112 QT	BK 115H	MBL 112
16.0	11.4	BK 120H	BH 118	HB 117 QT	BK 120H	MBL 117
12.0	12.4	BK 130H	BH 128	HB 127 QT	BK 130H	MBL 127
13.0	13.4	BK 140H	-	HB 137 QT	BK 140H	MBL 137
15.0	15.4	BK 160H	BH 158	HB 157 QT	BK 160H	MBL 157
18.0	18.4	BK 190H	BH 188	HB 187 QT	BK 190H	MBL 187

"Emerson Power Transmission Manufacturing is not affiliated with any of the foregoing companies".

Gripbelt Sheaves with Split Taper Bushings

Specifications - Stock "B5V" Sheaves

Part Number	Bushing	DIAMETERS				Type	Wt. (lbs.) Less Bush.
		Datum "A" Belts	Datum "B" Belts	Pitch "5V" Belts	Outside		
1 GROOVE, F = 1							
1B5V42	P1	3.8	4.2	4.3	4.48	1-Solid	2.5
1B5V44	P1	4.0	4.4	4.5	4.68	1-Solid	2.8
1B5V46	B	4.2	4.6	4.7	4.88	1-Solid	2.5
1B5V48	B	4.4	4.8	4.9	5.08	1-Solid	2.9
1B5V50	B	4.6	5.0	5.1	5.28	1-Solid	3.3
1B5V52	B	4.8	5.2	5.3	5.48	1-Solid	3.7
1B5V54	B	5.0	5.4	5.5	5.68	1-Solid	4.1
1B5V56	B	5.2	5.6	5.7	5.88	1-Solid	4.5
1B5V58	B	5.4	5.8	5.9	6.08	1-Solid	5.0
1B5V60	B	5.6	6.0	6.1	6.28	1-Solid	5.4
1B5V62	B	5.8	6.2	6.3	6.48	1-Web	5.3
1B5V64	B	6.0	6.4	6.5	6.68	1-Web	5.6
1B5V66	B	6.2	6.6	6.7	6.88	1-Web	6.0
1B5V68	B	6.4	6.8	6.9	7.08	1-Web	6.4
1B5V70	B	6.6	7.0	7.1	7.28	1-Web	6.8
1B5V74	B	7.0	7.4	7.5	7.68	1-Web	7.7
1B5V80	B	7.6	8.0	8.1	8.28	2-Arm	7.5
1B5V86	B	8.2	8.6	8.7	8.88	2-Arm	7.9
1B5V90	B	8.6	9.0	9.1	9.28	2-Arm	8.2
1B5V94	B	9.0	9.4	9.5	9.68	2-Arm	8.5
1B5V110	B	10.6	11.0	11.1	11.28	2-Arm	10.3
1B5V124	B	12.0	12.4	12.5	12.68	2-Arm	11.5
1B5V136	B	13.2	13.6	13.7	13.88	2-Arm	13.3
1B5V154	B	15.0	15.4	15.5	15.68	2-Arm	15.5
1B5V160	B	15.6	16.0	16.1	16.28	2-Arm	16.6
1B5V184	B	18.0	18.4	18.5	18.68	2-Arm	20.0
1B5V200	B	19.5	20.0	20.1	20.28	2-Arm	21.8
1B5V234	B	22.9	23.4	23.5	23.68	2-Arm	28.2
1B5V250	B	24.5	25.0	25.1	25.28	2-Arm	31.4
1B5V278	B	27.3	27.8	27.9	28.08	2-Arm	36.5

Gripbelt Sheaves with Split Taper Bushings

Specifications - Stock "B5V" Sheaves - continued

Part Number		DIAMETERS						Type	Wt. (lbs.) Less Bush.
Sheave	Bushing	Datum "A" Belts	Datum "B" Belts	Pitch "5V" Belts	Outside				
2 GROOVE, F = 1 23/32									
2B5V42	P1	3.8	4.2	4.3	4.48	5	3.7		
2B5V44	P1	4.0	4.4	4.5	4.68	3	4.1		
2B5V46	B	4.2	4.6	4.7	4.88	3	3.3		
2B5V48	B	4.4	4.8	4.9	5.08	3	3.9		
2B5V50	B	4.6	5.0	5.1	5.28	3	4.6		
2B5V52	B	4.8	5.2	5.3	5.48	3	5.3		
2B5V54	B	5.0	5.4	5.5	5.68	3	6.0		
2B5V56	B	5.2	5.6	5.7	5.88	3	6.7		
2B5V58	B	5.4	5.8	5.9	6.08	3	7.4		
2B5V60	B	5.6	6.0	6.1	6.28	3	8.2		
2B5V62	B	5.8	6.2	6.3	6.48	3	9.2		
2B5V64	B	6.0	6.4	6.5	6.68	3	8.4		
2B5V66	B	6.2	6.6	6.7	6.88	3	11.4		
2B5V68	B	6.4	6.8	6.9	7.08	4-Web	10.2		
2B5V70	B	6.6	7.0	7.1	7.28	4-Web	12.3		
2B5V74	B	7.0	7.4	7.5	7.68	4-Web	14.2		
2B5V80	B	7.6	8.0	8.1	8.28	4-Arm	11.3		
2B5V86	B	8.2	8.6	8.7	8.88	4-Arm	10.6		
2B5V90	B	8.6	9.0	9.1	9.28	4-Arm	11.1		
2B5V94	B	9.0	9.4	9.5	9.68	4-Arm	11.6		
2B5V110	B	10.6	11.0	11.1	11.28	4-Arm	14.4		
2B5V124	B	12.0	12.4	12.5	12.68	4-Arm	17.1		
2B5V136	B	13.2	13.6	13.7	13.88	4-Arm	19.3		
2B5V154	B	15.0	15.4	15.5	15.68	4-Arm	23.2		
2B5V160	B	15.6	16.0	16.1	16.28	4-Arm	24.2		
2B5V184	B	18.0	18.4	18.5	18.68	4-Arm	33.2		
2B5V200	B	19.5	20.0	20.1	20.28	4-Arm	34.8		
2B5V234	B	22.9	23.4	23.5	23.68	4-Arm	37.9		
2B5V250	B	24.5	25.0	25.1	25.28	4-Arm	47.0		
2B5V278	B	27.3	27.8	27.9	28.08	4-Arm	55.9		

Gripbelt Sheaves with Split Taper Bushings

Specifications - Stock "B5V" Sheaves - continued

Part Number	Bushing	Diameters				Type	Wt. (lbs.) Less Bush.
		Datum "A" Belts	Datum "B" Belts	Pitch "5V" Belts	Outside		
3 GROOVE, F = 2 7/16							
3B5V42	P1	3.8	4.2	4.3	4.48	5	4.8
3B5V44	P1	4.0	4.4	4.5	4.68	3	5.2
3B5V46	B	4.2	4.6	4.7	4.88	5	4.9
3B5V48	B	4.4	4.8	4.9	5.08	5	5.5
3B5V50	B	4.6	5.0	5.1	5.28	5	6.1
3B5V52	B	4.8	5.2	5.3	5.48	5	6.7
3B5V54	B	5.0	5.4	5.5	5.68	3	7.4
3B5V56	B	5.2	5.6	5.7	5.88	3	8.4
3B5V58	B	5.4	5.8	5.9	6.08	3	9.5
3B5V60	B	5.6	6.0	6.1	6.28	3	10.6
3B5V62	B	5.8	6.2	6.3	6.48	3	9.8
3B5V64	B	6.0	6.4	6.5	6.68	3	10.5
3B5V66	B	6.2	6.6	6.7	6.88	3	10.4
3B5V68	B	6.4	6.8	6.9	7.08	4-Web	10.9
3B5V70	B	6.6	7.0	7.1	7.28	4-Web	11.5
3B5V74	B	7.0	7.4	7.5	7.68	4-Web	12.6
3B5V80	B	7.6	8.0	8.1	8.28	4-Arm	14.2
3B5V86	B	8.2	8.6	8.7	8.88	4-Arm	13.7
3B5V90	B	8.6	9.0	9.1	9.28	4-Arm	14.5
3B5V94	B	9.0	9.4	9.5	9.68	4-Arm	17.0
3B5V110	B	10.6	11.0	11.1	11.28	4-Arm	19.8
3B5V124	B	12.0	12.4	12.5	12.68	4-Arm	22.1
3B5V136	B	13.2	13.6	13.7	13.88	4-Arm	24.9
3B5V154	B	15.0	15.4	15.5	15.68	4-Arm	30.4
3B5V160	B	15.6	16.0	16.1	16.28	4-Arm	31.7
3B5V184	B	18.0	18.4	18.5	18.68	4-Arm	40.9
3B5V200	B	19.5	20.0	20.1	20.28	4-Arm	47.6
3B5V234	B	22.9	23.4	23.5	23.68	4-Arm	61.5
3B5V250	B	24.5	25.0	25.1	25.28	4-Arm	66.6
3B5V278	B	27.3	27.8	27.9	28.08	4-Arm	79.1

Gripbelt Sheaves with Split Taper Bushings

Specifications - Stock "B5V" Sheaves - continued

Part Number	Bushing	DIAMETERS					Type	Wt. (lbs.) Less Bush.
		Datum "A" Belts	Datum "B" Belts	Pitch "5V" Belts	Outside			
4 GROOVE, F = 3 5/32								
4B5V42	P1	3.8	4.2	4.3	4.48	5	5.9	
4B5V44	P1	4.0	4.4	4.5	4.68	3	6.3	
4B5V46	B	4.2	4.6	4.7	4.88	5	6.1	
4B5V48	B	4.4	4.8	4.9	5.08	5	6.7	
4B5V50	B	4.6	5.0	5.1	5.28	5	7.4	
4B5V52	B	4.8	5.2	5.3	5.48	5	8.0	
4B5V54	B	5.0	5.4	5.5	5.68	3	8.9	
4B5V56	B	5.2	5.6	5.7	5.88	3	9.5	
4B5V58	B	5.4	5.8	5.9	6.08	3	10.3	
4B5V60	B	5.6	6.0	6.1	6.28	3	11.0	
4B5V62	B	5.8	6.2	6.3	6.48	3	11.3	
4B5V64	B	6.0	6.4	6.5	6.68	3	12.1	
4B5V66	B	6.2	6.6	6.7	6.88	3	12.0	
4B5V68	B	6.4	6.8	6.9	7.08	3	12.6	
4B5V70	B	6.6	7.0	7.1	7.28	4-Web	13.2	
4B5V74	B	7.0	7.4	7.5	7.68	4-web	14.5	
4B5V80	B	7.6	8.0	8.1	8.28	4-Arm	15.2	
4B5V86	B	8.2	8.6	8.7	8.88	4-Arm	16.6	
4B5V90	B	8.6	9.0	9.1	9.28	4-Arm	17.6	
4B5V94	B	9.0	9.4	9.5	9.68	4-Arm	20.0	
4B5V110	B	10.6	11.0	11.1	11.28	4-Arm	22.8	
4B5V124	B	12.0	12.4	12.5	12.68	4-Arm	26.5	
4B5V136	B	13.2	13.6	13.7	13.88	4-Arm	30.7	
4B5V154	B	15.0	15.4	15.5	15.68	4-Arm	37.9	
4B5V160	B	15.6	16.0	16.1	16.28	4-Arm	40.5	
4B5V184	B	18.0	18.4	18.5	18.68	4-Arm	50.7	
4B5V200	B	19.5	20.0	20.1	20.28	4-Arm	58.5	
4B5V234	B	22.9	23.4	23.5	23.68	4-Arm	73.9	
4B5V250	B	24.5	25.0	25.1	25.28	4-Arm	83.8	
4B5V278	B	27.3	27.8	27.9	28.08	4-Arm	94.3	

Variable Pitch Cast Iron Sheaves

Single Groove Variable Pitch Sheaves for "3L", "4L", "5L", "A", "B", and "5V" Belts

Table 1 Stock Sizes - Finished Bore (inches)

Part No.	Type	O.D.	Stock Bores Marked "X"										Wt. Lbs.	
			1/2	5/8	3/4	7/8	1	1 1/8	1 1/4	1 3/8	1 5/8			
1VP25	1	2.50	X	-	-	-	-	-	-	-	-	-	-	.8
1VP30	1	2.87	X	X	X	-	-	-	-	-	-	-	-	.9
1VP34	1	3.15	X	X	X	X	-	-	-	-	-	-	-	1.2
1VP40	1	3.75	X	X	X	X	X	-	-	-	-	-	-	1.7
1VP44	1	4.15	X	X	X	-	-	-	-	-	-	-	-	1.9
1VP44	2	4.15	-	-	-	X	X	X	-	-	-	-	-	2.6
1VP50	1	4.75	X	X	X	-	-	-	-	-	-	-	-	1.9
1VP50	2	4.75	-	-	-	X	X	X	-	-	-	-	-	2.9
1VP56	1	5.35	X	X	X	-	-	-	-	-	-	-	-	2.7
1VP56	2	5.35	-	-	-	X	X	X	-	-	-	-	-	3.4
1VP60	2	6.00	-	-	X	X	X	-	X	X	-	X	X	5.5
1VP62	2	5.95	-	X	X	X	X	X	X	X	X	X	X	5.7
1VP65	2	6.50	-	-	X	X	X	-	X	X	-	X	X	5.8
1VP68	2	6.55	-	X	X	X	X	X	X	X	X	X	X	6.4
1VP71	2	7.10	-	-	X	X	X	-	X	X	-	X	X	6.8
1VP75	2	7.50	-	-	X	X	X	-	X	X	-	X	X	7.3

Variable Pitch Cast Iron Sheaves

Single Groove Variable Pitch Sheaves for "3L", "4L", "5L", "A", "B", and "5V" Belts

Table 2

Part No.	Type	DIAMETER RANGE																	
		"3L" BELTS			"4L" or "A" BELTS			"5L" OR "B" BELTS			"5V" BELTS								
		Min. Pitch	Turns Open	Max. Pitch	Turns Open	Min. Datum	Turns Open	Max. Datum	Turns Open	Min. Datum	Turns Open	Max. Datum	Turns Open	Min. Pitch	Turns Open	Max. Pitch	Turns Open		
1VP25	1	1.6	4	2.4	0	-	-	-	-	-	-	-	-	-	-	-	-		
1VP30	1	1.8	4	2.7	0	-	-	-	-	-	-	-	-	-	-	-	-		
1VP34	1	1.7	4	2.5	0	1.9	5	2.9	0	2.4	5	3.2	1	-	-	-	-		
1VP40	1	2.3	4	3.1	0	2.4	5	3.4	0	2.7	6	3.7	1	-	-	-	-		
1VP44	1	2.7	4	3.5	0	2.8	5	3.8	0	3.1	6	4.1	1	-	-	-	-		
1VP44	2	2.7	4	3.5	0	2.8	5	3.8	0	3.1	6	4.1	1	-	-	-	-		
1VP50	1	3.3	4	4.1	0	3.4	5	4.4	0	3.7	6	4.7	1	-	-	-	-		
1VP50	2	3.3	4	4.1	0	3.4	5	4.4	0	3.7	6	4.7	1	-	-	-	-		
1VP56	1	3.9	4	4.7	0	4.0	5	5.0	0	4.3	6	5.3	1	-	-	-	-		
1VP56	2	3.9	4	4.7	0	4.0	5	5.0	0	4.3	6	5.3	1	-	-	-	-		
1VP60	2	-	-	-	-	4.2	5	5.2	0	4.3	6	5.5	0	-	-	-	-		
1VP62	2	-	-	-	-	4.2	5	5.2	0	4.5	6	5.5	0	4.9	6	5.9	0		
1VP65	2	-	-	-	-	4.7	5	5.7	0	4.8	6	6.0	0	5.2	6	6.4	0		
1VP68	2	-	-	-	-	4.8	5	5.8	0	5.1	6	6.1	0	5.5	6	6.5	0		
1VP71	2	-	-	-	-	5.3	5	6.3	0	5.4	6	6.6	0	5.8	6	7.0	0		
1VP75	2	-	-	-	-	5.7	5	6.7	0	5.8	6	7.0	0	6.2	6	7.4	0		

All fitted with Hollow Head Set Screws.

Any standard Browning Sheave can be used as a Companion Sheave.

Variable Pitch Cast Iron Sheaves
**Two Groove Variable Pitch Sheaves for
“3L”, “4L”, “5L”, “A”, “B”, and “5V” Belts**
Table 1 Stock Sizes - Finished Bore (inches)

Part No.	Type	O.D.	Stock Bore Sizes Marked "X"										Wt. Lbs.		
			1/2	5/8	3/4	7/8	1	1 1/8	1 1/4	1 3/8	1 5/8				
2VP36	4	3.35	X	X	X	X	-	-	-	-	-	-	-	-	2.6
2VP42	4	3.95	-	X	X	X	X	X	X	-	-	-	-	-	3.5
2VP50	5	4.75	-	X	X	X	X	X	X	-	-	-	-	-	5.4
2VP56	5	5.35	-	X	X	X	X	X	X	-	-	-	-	-	6.6
2VP60	5	6.00	-	-	X	X	X	-	-	-	-	X	X	X	10.2
2VP62	5	5.95	-	-	X	X	X	X	X	X	X	X	-	-	10.5
2VP65	5	6.50	-	-	X	X	X	-	-	-	-	X	X	X	11.6
2VP68	5	6.55	-	-	-	X	X	X	X	X	X	X	-	-	12.3
2VP71	5	7.10	-	-	X	X	X	-	-	-	-	X	X	X	13.4
2VP75	5	7.50	-	-	X	X	X	-	-	-	-	X	X	X	15.5

Variable Pitch Cast Iron Sheaves

Two Groove Variable Pitch Sheaves for "3L", "4L", "5L", "A", "B", and "5V" Belts

Table 2

Part No.	Type	DIAMETER RANGE																	
		"3L" BELTS			"4L" or "A" BELTS			"5L" OR "B" BELTS			"5V" BELTS								
		Min. Pitch	Turns Open	Max. Pitch	Min. Datum	Turns Open	Max. Datum	Turns Open	Min. Datum	Turns Open	Max. Datum	Turns Open	Min. Pitch	Turns Open	Max. Pitch				
2VP36	4	1.9	4	2.7	0	2.0	5	3.0	0	2.5	5	3.3	1	-	-	-	-		
2VP42	4	2.5	4	3.3	0	2.6	5	3.6	0	2.9	6	3.9	1	-	-	-	-		
2VP50	5	3.3	4	4.1	0	3.4	5	4.4	0	3.7	6	4.7	1	-	-	-	-		
2VP56	5	3.9	4	4.7	0	4.0	5	5.0	0	4.3	6	5.3	1	-	-	-	-		
2VP60	5	-	-	-	-	4.2	5	5.2	0	4.3	6	5.5	0	-	-	-	-		
2VP62	5	-	-	-	-	4.2	5	5.2	0	4.5	6	5.5	1	4.9	6	5.9	0		
2VP65	5	-	-	-	-	4.7	5	5.7	0	4.8	6	6.0	0	5.2	6	6.4	0		
2VP68	5	-	-	-	-	4.8	5	5.8	0	5.1	6	6.1	1	5.5	6	6.5	0		
2VP71	5	-	-	-	-	5.3	5	6.3	0	5.4	6	6.6	0	5.8	6	7.0	0		
2VP75	5	-	-	-	-	5.7	5	6.7	0	5.8	6	7.0	0	6.2	6	7.4	0		

All fitted with Hollow Head Set Screws.

Any standard two groove Browning Sheave can be used as a Companion Sheave.

Variable Pitch Cast Iron Sheaves

Table 1 Stock "VL" and "VM" Variable Pitch Sheaves

Part No.	O.D.	Stock Bores Marked "X"					Wt. Lbs.
		1/2	5/8	3/4	7/8		
1VL25	2.50	X	X	-	-	.8	
1VL30	2.87	X	X	-	-	.9	
1VL34	3.15	X	X	X	-	1.2	
1VL40	3.75	X	X	X	X	1.7	
1VL44	4.15	X	X	X	X	1.9	
1VM50	4.75	X	X	X	X	1.9	

Table 2

Part No.	DIAMETER RANGE											
	"3L" BELTS				"4L" or "A" BELTS				"5L" OR "B" BELTS			
	Min. Pitch	Turns Open	Max. Pitch	Turns Open	Min. Datum	Turns Open	Max. Datum	Turns Open	Min. Datum	Turns Open	Max. Datum	Turns Open
1VL25	1.6	4	2.4	0	-	-	-	-	-	-	-	-
1VL30	1.8	4	2.7	0	-	-	-	-	-	-	-	-
1VL34	1.7	4	2.5	0	1.9	5	2.9	0	2.4	5	3.2	1
1VL40	2.3	4	3.1	0	2.4	5	3.4	0	2.7	6	3.7	1
1VL44	2.7	4	3.5	0	2.8	5	3.8	0	3.1	6	4.1	1
1VM50	3.3	4	4.1	0	3.4	5	4.4	0	3.7	6	4.7	1

SPLIT TAPER™ Bushings



Bushing Specifications

Part No.	Dimensions		Bore Range		Cap Screws		Av. Wt. Lbs.	Wrench Torque In-Lbs.
	D		Type 1	Type 2	No.	Size		
	Large End	Small End						
G	1.172"	1.133"	3/8" - 15/16"	1"	2	1/4 x 5/8"	.5	95
H	1.625	1.570	3/8-1 3/8	1 7/16-1 1/2	2	1/4 x 3/4	.8	95
P1	1.9375	1.8555	1/2 - 1 7/16	1 1/2 - 1 3/4	3	5/16 x 1	1.3	192
P2	1.9375	1.7930	3/4 - 1 7/16	1 1/2 - 1 3/4	3	5/16 x 1	1.5	192
P3	1.9375	1.6993	1 1/8- 1 3/8	1 5/8	3	5/16 x 1	2	192
B	2.625	2.5567	1/2 - 1 15/16	2 - 2 7/16	3	5/16 x 1 1/4	1.8	192
Q1	2.875	2.7657	3/4 - 2 1/16	2 1/8 - 2 11/16	3	3/8 x 1 1/4	3.5	348
Q2	2.875	2.7032	1 - 2 1/16	2 1/8 - 2 5/8	3	3/8 x 1 1/4	4.5	348
Q3	2.875	2.6094	1 3/8 - 1/16	2 1/8 - 2 1/2	3	3/8 x 1 1/4	5.5	348
R1	2.875	3.8750	1 1/8 - 2 13/16	2 7/8 - 3 3/4	3	3/8 x 1 3/4	7.5	348
R2	4.000	3.7500	1 3/8 - 2 13/16	2 7/8 - 3 5/8	3	3/8 x 1 3/4	11	348
S1	4.000	4.4180	1 11/16 - 3 3/16	3 1/4 - 4 1/4	3	1/2 x 2 1/4	13.5	840
S2	4.625	4.2696	1 7/16 - 3 3/16	3 1/4 - 4 3/16	3	1/2 x 2 1/4	19	840
U0	4.625	5.7656	2 3/8-3 1/16	-	3	5/8 x 2 3/4	30	1680
U0	6.000	5.7656	3 1/4 - 4 1/4	4 3/8 - 5 1/2	3	5/8 x 2 3/4	27	1680
U1	6.000	5.6485	2 3/8 - 4 1/4	4 3/8 - 5 1/2	3	5/8 x 2 3/4	40	1680
U2	6.000	5.4610	2 7/16 - 4 1/4	4 3/8 - 5	3	5/8 x 2 3/4	50	1680
W1	6.000	8.1016	3 3/8 - 6 3/16	6 1/4 - 7 7/16	4	3/4 x 3	104	3000
W2	8.500	7.9141	3 3/8 - 6 3/16	6 1/4 - 7 7/16	4	3/4 x 3	133	3000
Y0*	8.500	11.4688	6 - 7 15/16	8 - 0	4	1 x 5	270	7200

R1 - 1 1/8, R1- 1 3/16, R2 - 1 3/8, S1 - 1 11/16, S1 - 1 3/4, and S2 - 1 7/8" to 2 1/8" Bushings are Steel. U0 and U1 - 2 3/8" to 3 3/16" and U2 - 2 7/16" to 3 3/16" are Cast Iron. "W" and "Y" Bushings are Cast Iron. All other Bushings on this page are either Sintered Steel, Malleable Iron or Ductile Iron.

Contact factory for clarification.

Note - Taper on all BROWNING SPLIT TAPER™ Bushings is 3/4" per foot on diameter.

*Y Bushings are MADE-TO-ORDER.

Bearings

Air Handling Solutions

SEALMASTER®



Mounted
Ball Bearing



Mounted
Roller Bearing



SLEEVLLOC™ Spherical
Roller Bearing

Browning®



1000/1100 Series
Spherical Roller Bearing



Mounted Ball
Bearing



Stamped Steel
Bearing



22500 Series
Spherical Roller Bearing



Rubber
Mounted Bearing

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▲WARNING

Failure to observe safety precautions could cause personal injury or equipment damage.



▲CAUTION

High voltage and rotating parts may cause serious or fatal injury. Turn off power to install or service.



▲WARNING

Do not operate without guards. Turn off power to install or service.

Mounted Ball Bearings

SEALMASTER

- Available in a variety of housing configurations including pillow block, two-bolt flange, four-bolt flange and more
- Available with Set Screw, Double Lock or SKWEZLOC[®] locking collars
- A/C housing fits available from stock
- Self aligning bearings
- Felt lined labyrinth seals

See page 94 for nomenclature



BROWNING



- Available in a variety of housing configurations including pillow block, two-bolt flange, four-bolt flange and more
- AH housing fits available from stock
- Semi-solid cast iron base
- Anti-rotation rivet

Mounted Roller Bearings

SEALMASTER

- Available in split cast iron housed pillow blocks
- Designed with replaceable cartridge inserts
- A/C housing fits available from stock
- High capacity double row tapered roller bearing design
- Self aligning
- Split cast iron housings

See page 94 for nomenclature



SEALMASTER Spherical - SLEEVLOC™

- Available in a variety of housing configurations including pillow block, flange units, flange bracket units and take-up units
- Two types of housing materials - Series 2000 cast iron and Series 3000 ductile iron
- Shielded double lip contact seal
- Unique shaft locking system helps prevent slipping, fretting and won't leave burrs on the shaft
- Advanced tapered adaptor design improves concentricity
- Self-aligning double-row spherical bearings

See page 94 for nomenclature

Mounted Roller Bearings

BROWNING Spherical

- Available in a variety of housing configurations including pillow blocks, flange blocks, flange cartridges and take-up units
- Standard with MULTI-TRAP[®] seals
- Self-aligning double-row spherical bearings
- One-piece cast iron (1000 Series) or ductile iron (1100 Series) housings



BROWNING Spherical

- Cast iron units in 22500 Series
- Tapered adaptor locking mechanism
- Triple labyrinth seals
- Self-aligning double-row spherical roller
- Removeable housing caps

Stamped Steel/Rubber Mounted

BROWNING Rubber Mounted

- Available in cartridges and pillow blocks
- Designed to fit into HVAC web-mount supports
- Available with set screw and eccentric locking
- Cartridges adjust with misalignment and dampen noise and vibration



BROWNING Stamped Steel

- Low cost stamped steel housings for light-duty HVAC requirements
- Well suited for small spaces
- Available with set screw, BOA or eccentric locking collars
- Permanently sealed and lubricated for life for maintenance-free operation

Air Handling Bearing Applications

	Light Duty	Light Commercial Duty	Commercial Duty	Industrial Duty
SEALMASTER Ball		✓	✓	✓
BROWNING Ball	✓	✓	✓	
SEALMASTER RPB			✓	✓
SEALMASTER SLEEVLOC™			✓	✓
BROWNING 1000 Series			✓	✓
BROWNING 22500 Series				✓
BROWNING Rubber Mount	✓	✓		
BROWNING Stamped Steel	✓	✓		

Air Handling Bearing Solutions

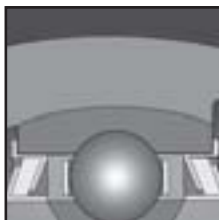
SEALMASTER

Misalignment

Bearing Type	Misalignment
Ball	+/- 2-3°
RPB	+/- 3°
SLEEVELOC™	+/- 1 1/2°

Housing Fits (Ball & Tapered Roller)

- Special air handling fit between the bearing insert/cartridge and the housing
- Allows bearings to properly self-align when mounted on HVAC framing which will in turn reduce vibration, excessive noise and possible bearing performance problems



Noise Test (Ball)

- Extra noise test check point during manufacturing process to identify bearings meeting the noise level needs of the air handling industry

Precision Hardened and Honed Rings (Ball)

- Inner rings are zone hardened to maintain ballpath hardness while keeping inner ring extension soft for a precision set screw hold
- Ballpaths are honed for quieter operation and less vibration

Air Handling Bearing Solutions

SEALMASTER

Label Identification (Ball)

- AC/NT units are labeled with metal nameplate riveted into housing indicating SEALMASTER Air Handling Unit

Seals (Ball & Tapered Roller)

- Felt lined labyrinth seals are suited for energy concerns
- Labyrinth construction has a low coefficient of friction between the metal flingers and filtering material
- Standard break-away and running torques are lower than contact seal design



Vertical Mounting (Ball)

- “Rainshield” protective cover for vertical shaft applications where condensation and water could run down the shaft and get into the bearing
- Special flinger repels moisture build-up through rotating motion and centrifugal force

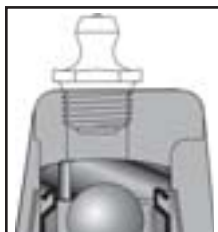


BROWNING**Misalignment**

Bearing Type	Misalignment
Ball	+/- 1 1/2°
Roller	+/- 1 1/2°

**Housing Fits
(Ball)**

- BROWNING AH Ball Bearings are manufactured with a special AH housing fit
- Allows bearings to properly self-align when mounted on HVAC framing which will in turn reduce vibration, excessive noise and possible bearing performance problems

**Precision Hardened and Honed Rings
(Ball)**

- Inner rings are zone hardened to maintain ballpath hardness while keeping inner ring extension soft for a precision set screw hold
- Ballpaths are honed for quieter operation and less vibration

**Anti-Rotation Rivet
(Ball)**

- Prevents outer ring creep (rotation within the housing)
- Reduces heat build-up and prolongs useful bearing life



Air Handling Bearing Solutions

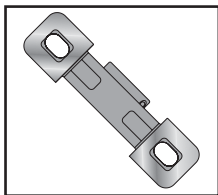
BROWNING

Noise Tested (Ball)

- Extra noise test check point added to manufacturing to ensure that bearings meet the exacting noise level needs of the air handling industry

Semi-Solid Cast Iron Base (Ball & Roller)

- Excellent mounting foundation
- Integral to preventing sheet metal “Buckling”



Stock Product (Ball)

- Specially designed “Air-Handling” Bearings are a stock product and available off-the-shelf

Air Handling Locking Solutions

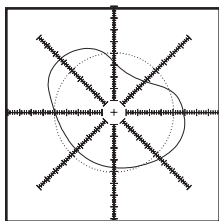
Set Screw Locking

- Most popular locking mechanism
- Does not require collar
- Easy to install
- Good for reversing applications



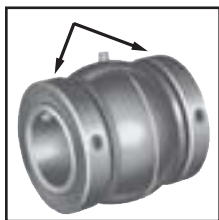
Inner Ring Roundness

- 120° Set Screw positioning
- 120° positioning gives less distortion than 90° or 45° set screw positioning which is typically found on competitive products



Double Lock Locking

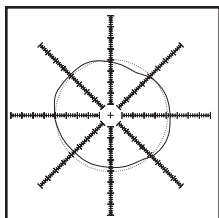
- Inner ring is extended on both sides
- Preferred lock for roller bearing designs
- Inner race is locked to the shaft by four set screws (two on each collar)
- Double lock should be specified for demanding applications or where shaft lock reliability is critical



Air Handling Locking Solutions

SKWEZLOC Locking Collar

- Available on SEALMASTER ball bearings only
- Minimal vibration
- High locking reliability
- Reduced fretting corrosion
- Quieter operation
- Smooth rotation
- Good for high speeds
- Locks to stainless steel shafting
- Won't mark shafts like set screw locking devices
- Often specified in HVAC industry where low vibration and low noise is needed

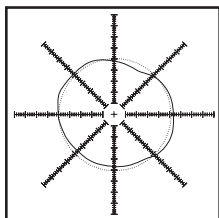
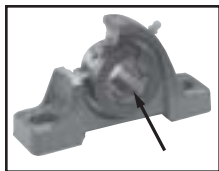


Inner Ring Roundness

- SKWEZLOC locking collar minimizes ballpath distortion

BOA Locking Collar

- Available on BROWNING ball bearings only
- High locking reliability
- Same inner ring and collar system as SEALMASTER SKWEZLOC
- "Off-the-shelf" availability in popular AH bearing pillow block sizes 3/4" to 2 7/16"



Inner Ring Roundness

- BOA locking collar minimizes ballpath distortion

Air Handling Locking Solutions

SLEEVLOC™ Locking Collar

- Available on SEALMASTER Roller Bearings only
- Minimal fretting
- Easy installation procedure
- Provides concentric locking for spherical roller bearings
- Multi 1:3 taper sleeve/inner
- Recessed collars - no external rotating components
- Easily interchangeable
- Won't mark shaft



Eccentric Locking Collar

- Eccentric locking collar mates with bearing inner race for shaft hold
- Lock collar bore and bearing inner race move in an offsetting direction from the lock collar creating a tight clamping force
- Lock collar surfaces are black oxide processed for corrosion protection
- Eccentric locking collars are **not recommended for reversing applications**



Set Screw Mounting Installation

Double and Single Set Screw Locking

1. Inspect Shaft

- Clean/remove burrs
- Check diameter
- Clean mounting surface
- Mounting surfaces must be flat

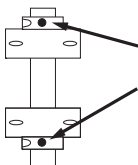
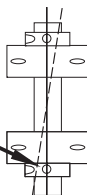


2. Place Bearing on Shaft

- Do not hammer bearing into shaft
- Apply light film of oil on shaft

3. Bolt Housing to Support Surface

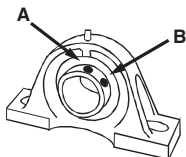
- Bearing and shaft must be in alignment max 2-3° (see Alignment Tables page 77 & 79)
- Turn shaft to make sure that it rotates easily/smoothly



4. Align Set Screws on Either End of Shaft

5. Alternate Torquing of Set Screws (Table 1 Page 89)

- Step 1 - Torque set screw "A" to half recommended torque
- Step 2 - Torque set screw "B" to recommended torque
- Step 3 - Torque set screw "A" to recommended torque
- Double Locking - repeat on opposite end



6. Start equipment slowly

- Check for unusual noise, vibration or bearing operating temperature

SKWEZLOC[®]/BOA Mounting Installation

1. Inspect Shaft

- Clean/remove burrs
- Check diameter
- Clean mounting surface
- Mounting surfaces must be flat

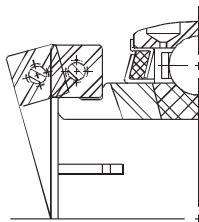
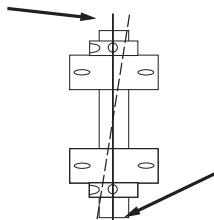


2. Place Bearing on Shaft

- Do not hammer bearing into shaft

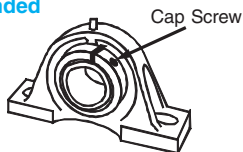
3. Bolt Housing to Support Surface

- Bearing and shaft must be in alignment max 2-3°
- Turn shaft to make sure that it rotates



4. Push Locking Collar Tightly Against Inner Ring Shoulder

5. Torque Cap Screw to Recommended Value (Table 2 Page 89)



6. Start equipment slowly

- Check for unusual noise, vibration or bearing operating temperature

Eccentric Mounting Installation

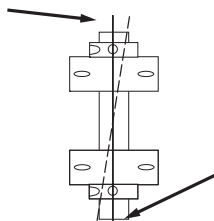
1. Inspect Shaft

- Clean/remove burrs
- Check diameter
- Clean mounting surface
- Mounting surfaces must be flat



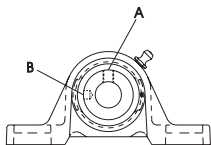
2. Place Bearing on Shaft

- Do not hammer bearing into shaft
- Apply light film of oil on shaft



3. Bolt Housing to Support Surface

- Bearing and shaft must be in alignment
 - Ball - 1 1/2° max
- Turn shaft to make sure that it rotates



4. Fasten Unit to Shaft

(See torque specification table)

- Step 1 - Place collar on inner race and rotate by hand in direction of shaft rotation until eccentrics are engaged
- Step 2 - Insert drift pin into the hole in the collar O.D. and lock in the direction of shaft rotation with aid of a small hammer
- Step 3 - Torque single set screw to recommended torque (ref. Table 1 page 89)

5. Start equipment slowly

- Check for unusual noise, vibration or bearing operating temperature

SLEEVLOC Mounting Installation

1. Check Shaft Tolerance

- Shaft should be within tolerance range shown in Table 4 page 89

2. Align Shaft

- Shaft must be in alignment within $\pm 1.5^\circ$



3. Fixed and Float

- Fixed and float bearing systems are recommended
- Fixed (non-expansion) bearings fix shaft position axially
- Float (expansion) bearings allow for mounting variables and normal heat growth of shaft

4. Insert Set Screws

- Snug down all set screws on mounting side of bearing until wrench can bend

5. Review Easy Installation Tool

- Insert short end of wrench in front of Easy Installation Tool
- Align wrench with start line as shown

6. Tighten Set Screws

- Snug all set screws
- Tighten set screws by bending wrench to control line while holding card in place or to 65 in/lbs
- Incorporate pattern from page 88

7. Repeat Step 6

- Repeat until all screws are tightened

8. Start equipment slowly

- Check for unusual noise, vibration or bearing operating temperature



SLEEVLOC Mounting Installation

**Tighten Set Screws
Using the Corresponding Pattern**



Bore Size
1 7/19" - 2 3/16"



Bore Size
2 7/16" - 3"



Bore Size
2 15/16" - 3"



Bore Size
3 7/16" - 4"

Installation Engineering Tables

Table 1 Torque for Tightening Set Screws
Set Screw, Double and Eccentric Locking Collars

Set Screw Diameter	Hex Size Across Flats	Recommended Torque	
		Inch lbs	Foot lbs
1/4	1/8	66 - 85	5.5 - 7.2
5/16	5/32	126 - 164	10.5 - 13.7
3/8	3/16	228 - 296	19.0 - 24.7
7/16	7/32	348 - 452	29.0 - 37.7
1/2	1/4	504 - 655	42.0 - 54.6
5/8	5/16	1104 - 1435	92.0 - 119.6

Table 2 Torque for Tightening Set Screws
SKWEZLOC and BOA Locking Collars

Cap Screw Size	Hex Wrench Size	Torx Wrench Size	Recommended Torque	
			Inch lbs	Foot lbs
#8-32 UNC-3A	1/8	T-25	63 - 70	5.3 - 5.8
#10-24 UNC-3A	9/64	T-27	81 - 90	6.8 - 7.5
#1/4-20 UNC-3A	3/16	T-30	162 - 180	13.5 - 15.0
#5/16-18 UNC-3A	1/4	T-45	360 - 400	30.0 - 33.3

Table 3 Recommended Shaft Tolerances
(except SLEEVLOC)

Shaft Diameter	Shaft Tolerance
up to 1 1/2"	Plus .0000 to Minus .001
over 1 1/2" to under 2 1/2"	Plus .0000 to Minus .0015
2 1/2" to 3"	Plus .0000 to Minus .002
over 3" to 4"	Plus .0000 to Minus .003

Table 4 SLEEVLOC Recommended Shaft Tolerances

Shaft Diameter	Shaft Tolerance
up to 1 15/16"	Plus .0000 to Minus .003
over 2 3/16"	Plus .0000 to Minus .004

Bearing Basics and F.A.Q.'s

	Speed Capability	Radial Load Capability	Thrust Load Capability	Misalignment
Ball Bearings	High	Moderate	Moderate	Static
Spherical Roller Bearings	Moderate	High	Low	Static and Dynamic
E-Type Tapered Roller Bearings	Low	High	High	None
SEALMASTER RPB Tapered Roller Bearing	Low	High	High	Static

Which can carry more radial load, a ball bearing or roller bearing?

- Roller bearings can carry more load because the rolling element has line contact with the raceway while the ball has only point contact
- Line contact means the load is spread out over a greater area, reducing the stress on races and rolling elements

Which type of bearing has the highest speed capability (ball, spherical or tapered roller bearing)?

- Ball bearings in general have the highest speed capability followed by spherical and tapered roller
- Larger contact areas (tapered roller bearings) result in higher levels of friction which decreases speed capability

What is the difference between static and dynamic misalignment?

- Static misalignment = shaft misalignment at a constant angle with respect to the bearing
- Dynamic misalignment = shaft that is continuously misaligning with respect to the bearing

Bearing Lubrication F.A.Q.'s

What is grease?

- Mixture of a soap/thickener, an oil and additives
- The thickener's function is to retain oil in the bearing cavity
- The oil provides lubricity to the rolling elements and raceways of the bearing
- Additives such as rust preventatives can enhance grease characteristics

Why grease instead of oil in the bearing?

- Grease is preferred due to reduced maintenance and/or lower cost
- Grease is easier to store, handle and transport
- Most mounted bearings are designed for relubrication with grease
- Oil is the preferred lubricant in high-speed or high-temperature applications

Can I mix greases?

- Compatibility may be an issue when mixing thickener and oil types
- Incompatibility can be avoided by using the grease or grease type recommended by the manufacturer

Can I over grease a bearing?

- Excessive grease in the bearing may be an issue for high speed applications
- Initial start-up after relubrication should be slow to allow grease to purge
- When greasing, add grease slowly
- Many mounted bearing seals are designed to allow grease to purge
- Some seals can be damaged or blown out by excessive relubrication

How often should I regrease, and how much grease should I add?

- The engineering charts in the engineering sections of the catalogs serve as general schedules since applications vary greatly. Your experience may be important in determining a lubrication schedule. (see Tables page 22)

Lubrication Engineering Tables

Table 5 SEALMASTER Ball Bearing Relubrication

Speed	Temperature	Cleanliness	Greasing Intervals
100 RPM	Up to 120°F	Clean	6 to 12 months
500 RPM	Up to 150°F	Clean	2 to 6 months
1000 RPM	Up to 210°F	Clean	2 weeks to 2 months
1500 RPM	Over 210 - 250°F	Clean	weekly
1500 to Max. Catalog Rating	Up to 150°F Over 150 - 250°F Up to 250°F Up to 250°F	Dirty Dirty Very Dirty Extreme Conditions	1 week to 1 month Daily to 2 weeks Daily to 2 weeks Daily to 2 weeks

Table 6 SEALMASTER Roller Bearing Relubrication

Speed	Temperature	Cleanliness	Greasing Intervals
100 RPM	Up to 120°F	Clean	6 months
500 RPM	Up to 150°F	Clean	2 months
1000 RPM	Up to 210°F	Clean	2 weeks
1500 to Max. Catalog Rating	Up to 150°F Over 150 - 250°F Up to 250°F Up to 250°F	Dirty Dirty Very Dirty Extreme Conditions	1 week to 1 month Daily to 1 weeks Daily to 1 weeks Daily to 1 weeks

Table 7 BROWNING Ball Bearing Relubrication

Speed	Temperature	Cleanliness	Greasing Intervals
100 RPM	-20°F - 120°F	Clean	4 to 10 months
500 RPM	-20°F - 150°F	Clean	1 to 4 months
1000 RPM	-20°F - 200°F	Clean	1 week to 1 month
1500 RPM	-20°F - 200°F	Clean	Bi-weekly
1500 to Max. Catalog Rating	Up to 150°F 150° - 200°F -20°F - 200°F -20°F - 200°F	Dirty Dirty Very Dirty Extreme Conditions	Daily to 1 week Daily to 1 week Daily to 1 week Daily to 1 week

Table 8 BROWNING Roller Bearing Relubrication

Speed	Temperature	Cleanliness	Greasing Intervals
100 RPM	-20°F - 125°F	Clean	6 months
500 RPM	-20°F - 150°F	Clean	2 months
1000 RPM	-20°F - 210°F	Clean	2 weeks
1500 to Max. Catalog Rating	-20°F - 150°F 150° - 200°F -20°F - 200°F -20°F - 200°F	Dirty Dirty Very Dirty Extreme Conditions	Daily to 1 week Daily to 1 week Daily to 1 week Daily to 1 week

Table 9 Sleevloc Relubrication

Speed	Temperature	Cleanliness	Greasing Intervals
100 RPM	-20°F - 125°F	Clean	1 - 4 months
500 RPM	-20°F - 150°F	Clean	1 week to 1 month
1000 RPM	-20°F - 210°F	Clean	1 - 2 weeks
1500 to Max. Catalog Rating	-20°F - 150°F 150° - 200°F -20°F - 200°F -20°F - 200°F	Dirty Dirty Very Dirty Extreme Conditions	Daily to 1 week Daily to 1 week Daily to 1 week Daily to 1 week

These charts are general recommendations. Experience and testing may be required for specific applications.

BROWNING Air Handling Interchange

BROWNING Ball Bearing Interchange

Requested Part Description	Manufacturer	BROWNING Part Description
P2BSCAH	*DODGE	VPS-2XX AH
P2BSCMAH	*DODGE	VPS-3XX AH
SYXX-TF/AH	*SKF	VPS-2XX AH
SYMXX-TF/AH	*SKF	VPS-3XX AH
RASC	*FAFNIR	VPS-2XX AH
P3-UXXN	*LINK-BELT	VPS-2XX AH

BROWNING Ball Bearing Interchange (BOA)

Requested Part Description	Manufacturer	BROWNING Part Description
P2BDLAH	*DODGE	VPB-2XX AH
P2BDLMAH	*DODGE	VPB-3XX AH

BROWNING Rubber Mount Interchange

Requested Part Description	Manufacturer	BROWNING Part Description
ZX0XXX	*NTN	RUBRE-1XX
R-X-FM	*SKF	RUBRE-1XX
RSCM-XX	*FAFNIR	RUBRE-1XX

BROWNING Roller Bearing Interchange

Requested Part Description	Manufacturer	BROWNING Part Description
ZEP-2XXX	*REXNORD	SPB1000
SYR XX	*SKF	SPB1000
P2B-EXXXR	*DODGE	SPB1000
PE-B224XXH	*LINK-BELT	SPB1000

* Always consult manufacturer's catalog for detailed dimensions.

*DODGE is a trademark of Reliance Electric Industrial Company. *SKF is a trademark of SKF USA Inc. *FAFNIR is a trademark of The Torrington Company. * LINK-BELT is a trademark of FMC. *NTN is a trademark of NTN Corporation of Japan. *REXNORD is a trademark of Rexnord Corporation. This trade name, trademark and/or registered trademark is used herein for product comparison purposes only, is the property of their respective owner and is not owned or controlled by Emerson Power Transmission Corporation (EPT). EPT does not represent or warrant the accuracy of this document.

SEALMASTER Nomenclature

SEALMASTER

High Performance Air Handling Bearings

Part Description	SEALMASTER Nomenclature
SEALMASTER Ball Bearing (Standard Duty)	NP-XX CXU
w/SKWEZLOC Locking Collar	NP-XXT CXU
w/Double Set Screw Locking Collar	NPD-XX CXU
SEALMASTER Ball Bearing (Medium Duty)	MP-XX CXU
w/SKWEZLOC Locking Collar	MP-XXT CXU
w/Double Set Screw Locking Collar	MPD-XX CXU
SEALMASTER Stamped Steel Unit	SRC-XX
SEALMASTER RPB Tapered Roller Bearing	RPB-XXX AH
SEALMASTER SLEEVLOC Spherical Roller Bearing	SPB2XXX-C2

High Performance Air Handling Bearings

Rainshield Bearing Nomenclature	Bore Size
S-2116 M15	15/16"
S-2116 M16	1"
S-2119 M18	1 1/8"
S-2119 M19	1 3/16"
S-2119 M20	1 1/4" reduced
S-2123 M20	1 1/4"
S-2123 M23	1 7/16"

* For BROWNING nomenclature, see interchange charts on page 93.

For mounted bearing Technical or
Air Handling Application questions contact:

(630)898-9620

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sealmaster.engineering@emerson-ept.com

APPLICATION CONSIDERATIONS

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