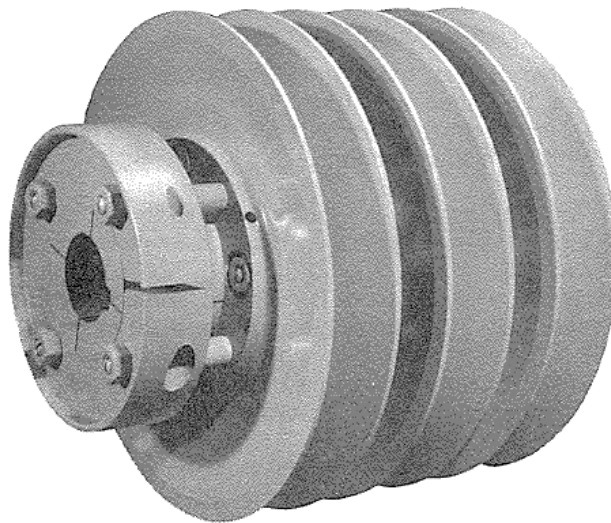


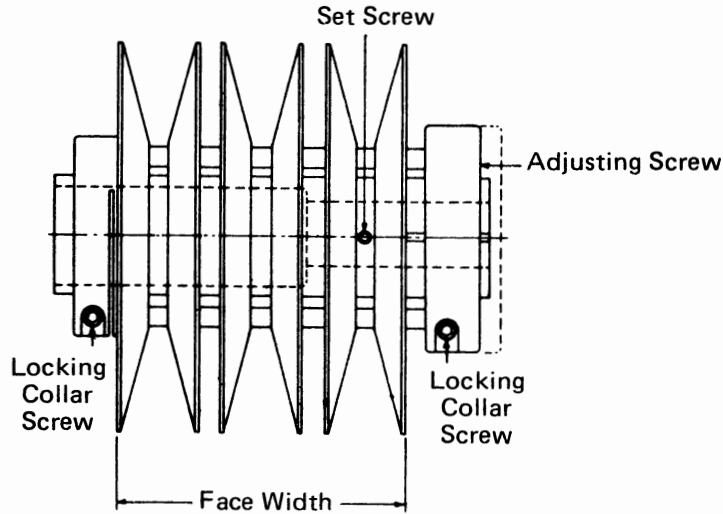
# VPS 110 R Variable Speed Drive

Installation & Maintenance Manual

P-5061-TBW  
Form 565B



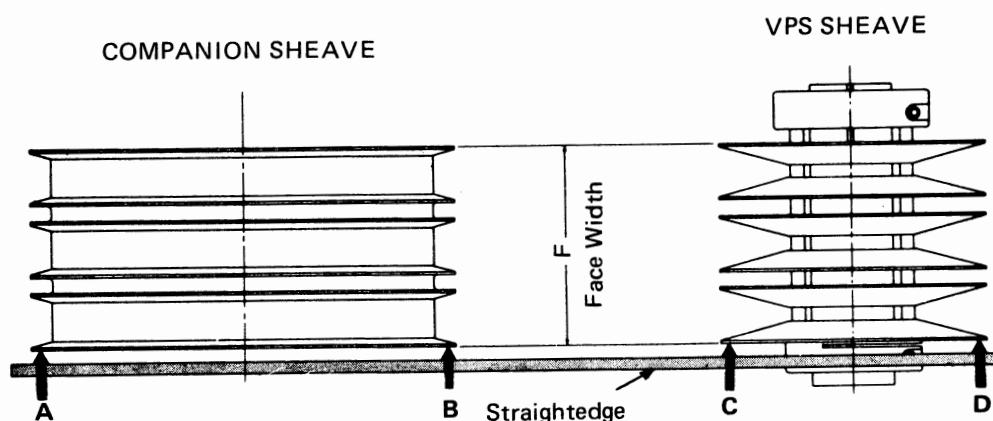
**INSTALLATION INSTRUCTIONS FOR WOOD'S  
VPS-110-R 2 - 3 AND 4 GROOVE  
VARIABLE SPEED DRIVES**



**Figure 1**

1. Install angled motor base, motor and companion sheave per instructions furnished with base. (Do not secure any bolts yet.)  
**Note:** If angled motor base is not used, the drive must be re-aligned with each speed change.
2. Loosen locking collars by loosening locking screws. Do not remove screws. (See Fig. 1)
3. Place on shaft. If extra force is required, spread saw cut slightly with screwdriver. Slide sheave into motor shaft as far as possible.
4. Open flanges to minimum pitch diameter using adjusting screw on outboard end. Tighten setscrew onto shaft. (See Fig. 1)
5. Place companion sheave on driveN shaft and align. Turn adjusting screw to adjust VPS sheave until face widths of both driveR and driveN sheaves are equal. Place one belt in position and adjust motor base until belt is snug. Using four point system in Figure 2, align sheaves, allowing 1/8" for takeup of companion sheave on bushing.
6. Tighten companion sheave to shaft per bushing installation instructions packed with bushing. Check alignment and correct as required.
7. Remove belt and adjust VPS flanges to pitch diameter desired. (See Table.) Tighten locking collars to 50 ft.lb. torque.

8. Place belts on sheaves and adjust motor base for correct belt tension. Center of belt span should depress 1/2" to 5/8" under heavy finger pressure.
9. Turn drive by hand to check for sheave runout. A few thousandths is normal.
10. If runout or vibration occurs:
  - a. Slacken and remove belts. Loosen VPS locking collars and wiggle flanges. Retighten without touching flanges and check.
  - b. If companion sheave runs out, check to insure that all bushing capscrews have been tightened to correct torque values per bushing installation sheet.
11. After drive has run twenty-four hours, check belt tension. Adjust to proper tension as above.



For proper alignment, straightedge should contact both sheaves at A, B, C and D. Face widths of both sheaves (dimension "F") should be equal.

Figure 2

### PITCH ADJUSTMENT

Pitch Diameter	Groove Top Width (inside)	Adjusting Screw turns (from maximum)
11.0—Maximum	1 5/8	0
10.5	1 3/4	2 3/4
10.0	1 7/8	5 1/2
9.5	2	8 1/4
9.0	2 1/8	11
8.5	2 1/4	13 3/4
8.0	2 3/8	16 1/2
7.5	2 1/2	19 1/4
7.0	2 5/8	22
6.5—Minimum	2 3/4	24 3/4

Therefore, 1/8" flange movement or approximately 2-3/4 turns of adjusting screw changes pitch diameter 1/2".

## WARNING

1. **Do Not** adjust or tamper with tension studs or nuts on inboard end of sheave.
2. **Do Not** attempt to adjust pitch diameter without completely removing belts from VPS sheave. Leaving belts in grooves would seriously damage both the sheave and the belts.
3. **Do Not** use hammer or pry bar on flanges on installing or removing sheave. Never use hard hammer for moving sheave.
4. **Do Not** force belts on and off sheaves. Adjust motor base until belts are slack enough to be easily removed by hand. Never attempt to remove belts with pry bar or other lever.

**Note** - VPS locking collars must be tightened with 50 ft. lb. torque.



All Customer Service phone numbers shown in bold

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