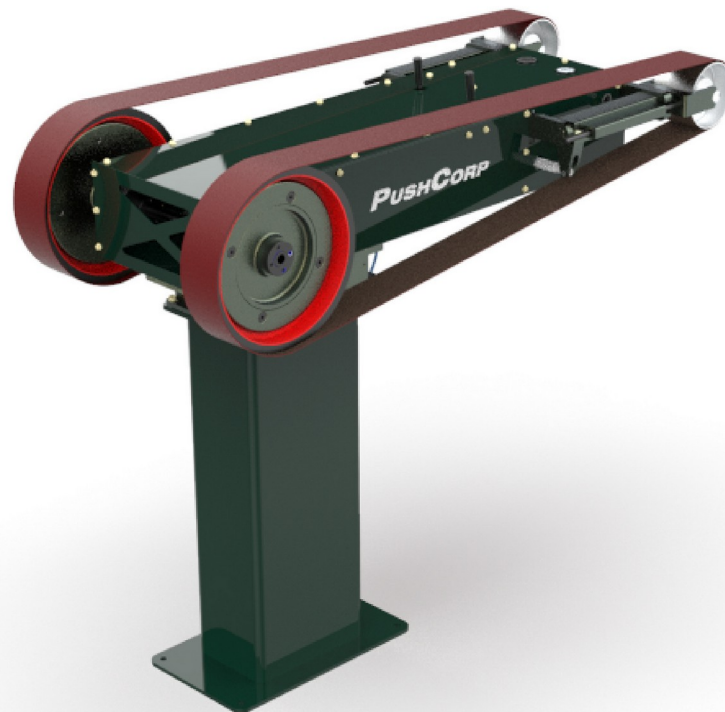


SBS82 Series **Servo Belt Stand**



PUSHCORP, INC.

Dallas, Texas

February, 2022

**NEVER OPERATE THE
SBS82 MANUALLY**

**NEVER OPERATE THE SBS82 WITH
PERSONNEL IN THE WORK CELL**

DO NOT USE LUBRICATED AIR.

**This device requires a dry, non-lubricated
100 psi (6.9 bar) maximum air supply
filtered to 5 μ m and a 0.3 micron oil mist
separator.**

**Non-compliance with these requirements
will void the manufacturer's warranty.**

(See Section 3.3)

**All fasteners, mounting holes and pipe
threads on this tool are METRIC.**

**All *PushCorp, Inc.* electrical cables are rated for
high twist and flex robotic applications with a
minimum cable bending radius specification of
125mm (5 in). Cable damage resulting from
failure to abide by this specification will not be
covered under warranty.**

Table of Contents

1.0 LIMITED WARRANTY.....	2
2.0 GENERAL OVERVIEW.....	4
3.0 INSTALLATION.....	5
3.1 Mounting the SBS82.....	5
3.2 Electrical Control Box.....	6
3.3 Pneumatic Connections.....	6
3.3.1 Standard Pneumatic Connections.....	6
3.3.2 Standard Pneumatic Connections with Retraction.....	7
4.0 OPERATION.....	8
4.1 Belt Media Installation and Removal.....	8
4.2 Slack Arm.....	9
4.3 Extended Contact Wheel.....	11
4.4 Belt Media Tracking.....	11
4.5 Achieving Desired Force.....	12
4.6 Achieving Desired Belt Media Speed.....	12
4.7 Servo Motor Drive Belt Replacement.....	12
4.8 Contact Wheel Replacement.....	13
4.9 ACME Adapter Hub.....	14
4.10 Contact Wheel Position Feedback.....	16
4.10.1 Without BSRCON - 575AG-811M14-897G.....	16
4.10.2 With BSRCON - 983G-4684M14-982G.....	18
4.11 Electrical Connections.....	19
4.11.1 Default Electrical Connections.....	20
5.0 TECHNICAL SPECIFICATIONS.....	21

1.0 Limited Warranty

Duration:

One year from date of delivery to the original purchaser.

Who gives this warranty (warrantor):

PushCorp, Inc.

Telephone: (972) 840-0208

Corporate Address:

P. O. Box 182915

Dallas, Texas 75218

Shipping Address:

3001 W. Kingsley Rd.

Garland, Texas 75041

Who receives this warranty (purchaser):

The original purchaser (other than for purposes of resale) of the *PushCorp, Inc.* product

What products are covered by this warranty:

Any *PushCorp, Inc.* Adjustable Force Device or Adjustable Force Device accessory supplied or manufactured by the Warrantor.

What is covered under this warranty:

Defects in material and/or workmanship which occur within the duration of the warranty period.

What is NOT covered in this warranty:

- A. IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO ONE YEAR FROM THE DATE OF ORIGINAL PURCHASE. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.
- B. ANY INCIDENTAL, INDIRECT, OR CONSEQUENTIAL LOSS, DAMAGE or EXPENSE THAT MAY RESULT FROM ANY DEFECT, FAILURE, MALFUNCTION OF THE *PUSHCORP, INC.* PRODUCT. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you.
- C. Any failure that results from an accident, purchaser's abuse, neglect, unauthorized repair or failure to operate the products in accordance with the instructions provided in the owner's manual(s) supplied with the product.

Responsibilities of the Warrantor under this warranty:

Repair or replace, at Warrantor's option, products or components which have failed within the duration of the warranty period.

Responsibilities of the purchaser under this warranty:

- A. Deliver or ship the *PushCorp, Inc.* product or component to PushCorp, Inc. Service Center, Dallas, TX. Freight and insurance costs, if any, must be borne by the purchaser.
- B. Use reasonable care in the operation and maintenance of the product as described in the owner's manual(s).

When warrantor will perform repair or replacement under this warranty:

Repair or replacement will be scheduled and serviced according to the normal work flow at the service center, and depending on the availability of replacement parts. Purchasers requiring quicker repair may receive such with payment of a *PushCorp, Inc.* predetermined expediting fee.

This Limited Warranty gives you specific legal rights and you may also have other rights which vary from state to state.

2.0 General Overview

The PushCorp SBS82 Series Servo Belt Stand combines passive compliant force control and closed-loop servo motor speed control technology. The SBS82 has been designed from the ground up as a belt stand for robotic finishing with many new and unique features. Accurate force and speed control allows you to achieve unprecedented levels of quality and consistency. The SBS82 enables maximum flexibility for any part-in-hand grinding, sanding, buffing or polishing application. Linear compliance with 1.6 inches (40 mm) of travel and excellent access allow a robot to easily manipulate parts over the Belt Media. An important feature of the SBS82 Belt Stand is the high torque servo motor and belt drive. The belt drive system provides a 2:1 increase in torque at the contact wheels for heavy material removal.

The force control technology in the SBS82 is based on the *PushCorp* Passive AFD80 Series Force Devices. This technology has proven itself in thousands of hours of production robotic applications. An electronic regulator is sold with the SBS82 and this allows the SBS82's force to be varied from 0 to 115 lbs. (0 to 511 N). This regulator has a coarse adjustment and is set with a 0-10V signal to the desired force output. If the force does not vary during the finishing process, then a manual proportional regulator can be used. Very accurate force output requires a precision regulator that operates in a narrow pressure range.

The SBS82 has a number of notable features that contributes to ease-of-use, and greater throughput. The Belt Media can be tracked remotely outside the work cell for convenience and user safety. When the Belt Media needs replacing the operator manually releases the tension using a lever mounted right on the unit. A belt tension sensor is provided to notify the user that the Belt Media has not been tensioned. A belt break sensor is also provided to notify the user if the Belt Media should break. These sensors can be used by the customer to program faults to prevent the system from starting should the Belt Media not be tensioned, or to move the robot away, and stop the system should a belt break. These features protect the user and equipment, while also reducing downtime.

In most any finishing process, consistency is of paramount importance. For this reason the SBS82 is powered by a high torque servo motor with adjustable speed control that can be varied at any time during the finishing process. The SBS82 has a 5.7 horsepower (4.28 kW) motor that supplies 14.7 lb•ft (20 N•m) of torque and a maximum speed of 2000 RPM at the contact wheels. This provides a range of Belt Media surface speeds up to 7330 SFPM (Surface Feet Per Minute). The SBS82 requires 14 inch (356 mm) diameter Contact Wheels with a width of 1", 2", 3", or 4". The unit is setup to use standard 132 inch long Belt Media. For multi-media finishing applications, the rubber contact wheel can be replaced with Scotchbrite™, or cloth wheels. This flexibility allows the SBS82 to perform a wide variety of finishing applications.

3.0 Installation

3.1 Mounting the SBS82

The SBS82 Servo Belt Stand is secured by four (4) fasteners passing through mounting holes located in the Base Plate. The Base Plate mounting hole locations are shown in Figure 1. The SBS82 must be securely mounted to keep the unit from moving during operation. The unit must be mounted level to achieve the desired force output at the Contact Wheels. A spirit level can be placed on the top of the Belt Stand and shims can be inserted under the Base Plate as required.

WARNING: Do NOT operate the unit without first mounting it securely.

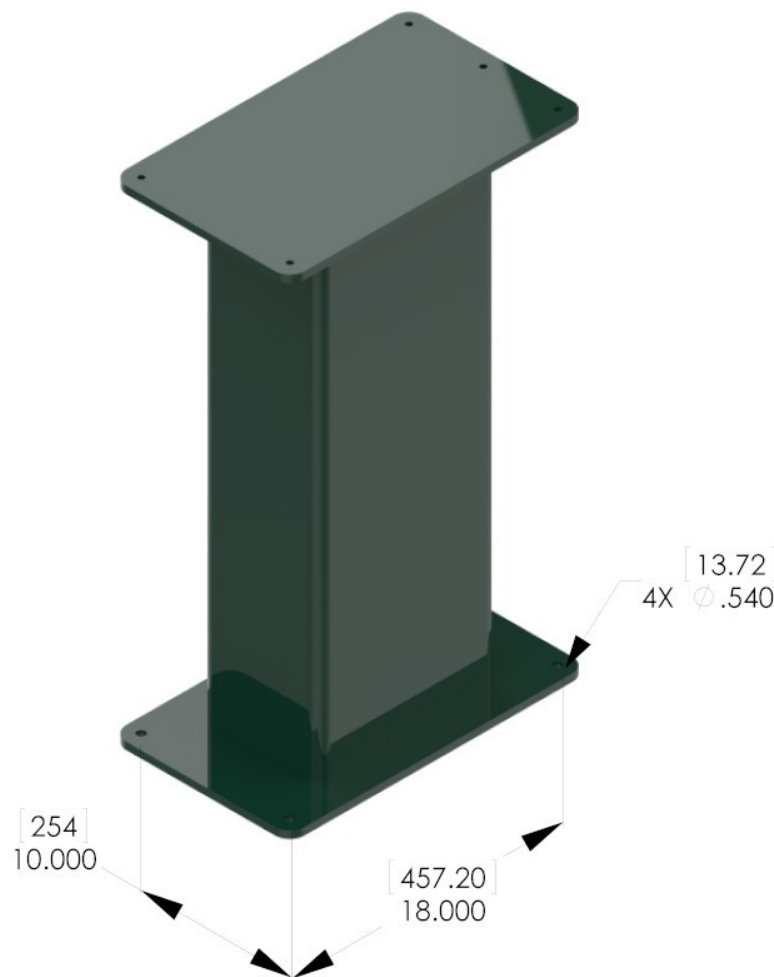


Figure 1. SBS80 Base Plate

The SBS82 attaches with four (4) fasteners, 1/2 inch (12 mm) in diameter. These fasteners are to be provided by the installer.

3.2 Electrical Control Box

An electrical control box is included in the standard system. It is meant to be wall mounted outside the robot work area in a relatively clean environment. Otherwise, a raw amplifier can be purchased with the SBS82. This will need to be integrated into a control box with the appropriate fusing and safeties. Both manuals can be found on www.pushcorp.com

If utilizing an Ethernet IP panel, please refer to the manual found in Products → Control Cabinets → BSRCON-EIP

If utilizing a raw s724 amplifier, please refer to Products → Kollmorgen S724

3.3 Pneumatic Connections

The SBS82 Belt Stand requires a dry, non-lubricated, 5 micron filtered, 80 to 100 psi (5 to 7 Bar) air supply with a 0.3 micron oil mist separator. Failure to provide supply air to these specifications can degrade performance and will void any warranty repairs concerning pneumatic components. Additionally, a *minimum* 80 psi (5 Bar) air pressure must be maintained for the device to operate within published specifications. Low air pressure will cause inferior force control performance and not allow the Belt Media to be properly tensioned.

WARNING: If water condensation is a problem in your air supply system, an air dryer device is highly recommended. Moisture inside the device will cause premature failure that will not be covered under warranty.

The SBS82 Belt Stand maintains a positive air pressure to impede the infiltration of contaminate materials. It is important to provide a continuous compressed air supply to the device at all times if the work environment contains airborne contaminants. If the environment is clean during non-operational periods, the air supply to the device may be shut off.

The SBS82 has one pneumatic input, an R 1/8 (Metric) port located on the SBS82 regulator. This port supplies all the air needed to operate the Belt Stand. Before connecting the supply to the air fitting, open the supply valve to blow out any contaminants which may be in the line. Charge the supply line with compressed air and verify that there are no air leaks and that there is a minimum of 80 psi (5 Bar). If a minimum air pressure of 80 PSI cannot be achieved, then an auxiliary air compressor or booster pump must be installed.

3.3.1 Standard Pneumatic Connections

The standard pneumatic set up for the SBS82 includes a minimum of 80 PSI air supply that leads to a shut off valve, 5µm filter, optional oil/mist separator, and air regulator. Before the air regulator that moderates the air supplied to the Supply -, the airline needs to supply the pressurized air to the force compliance purge and SBS82 tensioning cylinder. The pneumatic set up for force compliance in one direction can be seen in Figure 2.

Single Direction Force Compliance

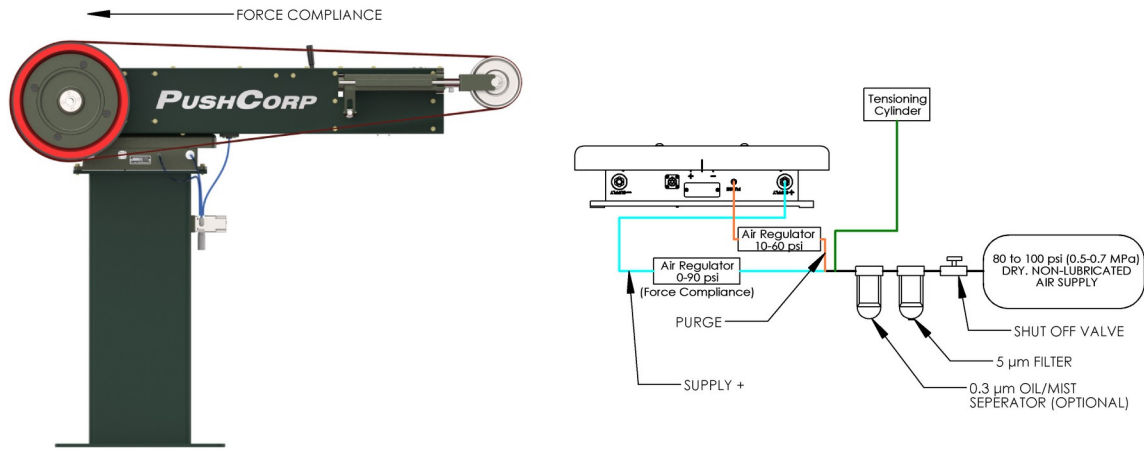


Figure 2: Standard Pneumatic Connections

3.3.2 Standard Pneumatic Connections with Retraction

The SBS82 features two air cylinders, which enables the operator to retract the unit to the negative side. This can be used during e-stop situations to position the sliding carriage toward the negative side and eliminate contact with the belt to the part. The pneumatic connections are the exact same with the addition of a solenoid valve and airline that is connected to the positive supply. This can be seen in the figure below in Figure 3. In order to perform the retract function air 0 PSI is supplied to the Supply (-) port and the solenoid is actuated to send the fully supply pressure to Supply (+). This should not be used in daily operation as it will prematurely wear the neoprene bumper.

Single Direction Force Compliance with Retraction

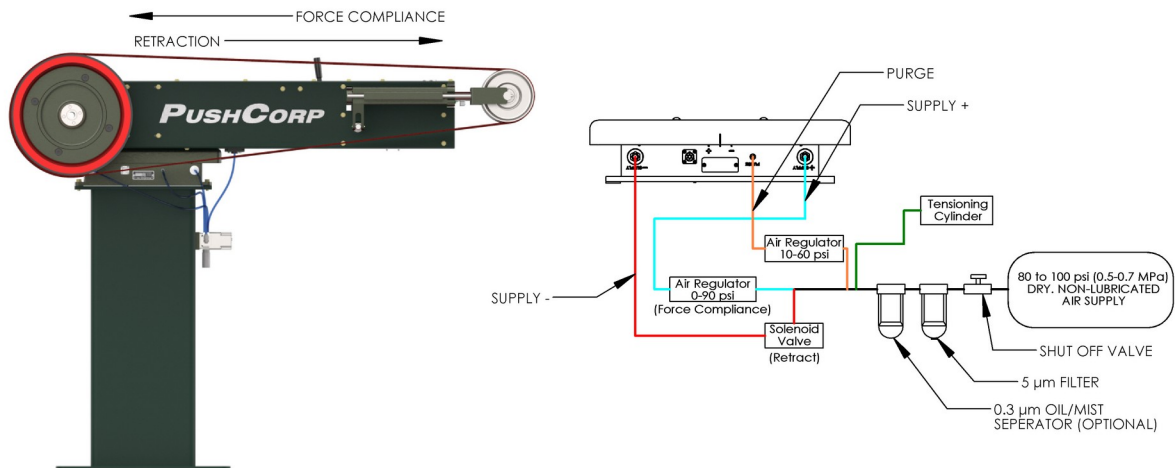


Figure 3: Standard Pneumatic Connections with Retraction

4.0 Operation

4.1 Belt Media Installation and Removal

The SBS82 uses 1", 2", 3", or 4" wide by 132" long Belt Media. To install new Belt Media, verify the servo motor and robot are disabled, then position the Belt Media Tension Release Lever towards the Contact Wheels of the SBS82, which releases the tension on the Belt Media. Install new Belt Media over the Contact Wheel and the Tracking Wheel as shown in Figure 4. Then tension the Belt Media by positioning the Belt Tension Release Lever to its rearward position. To remove the Belt Media reverse the previous steps.

Proper tension is required for each Belt Media width and type. The Belt Tension Pressure Adjustment Knobs are located at the rear of the machine, see Figure 4. The Belt Media tension should never be adjusted while the machine is operating. Belt Media Tension Pressure Gauges are located on the top of the machine to allow accurate setting of the pressure. The following chart is only a guideline for proper Belt Media tension pressures. The user is responsible for contacting the Belt Media manufacturer for the correct Belt Media tension.

Belt Width	Belt Media Tension Pressure	Belt Media Tension
1"	0.3 Mpa	43 lbs. (190 N)
2"	0.4 MPa	57 lbs. (254 N)
3"	0.5 MPa	71 lbs. (316 N)
4"	0.6 MPa	85 lbs. (380 N)

.1 MPa Belt Media Pressure Gauge = 14.2 lbs. (63.1 N) Belt Media Tension

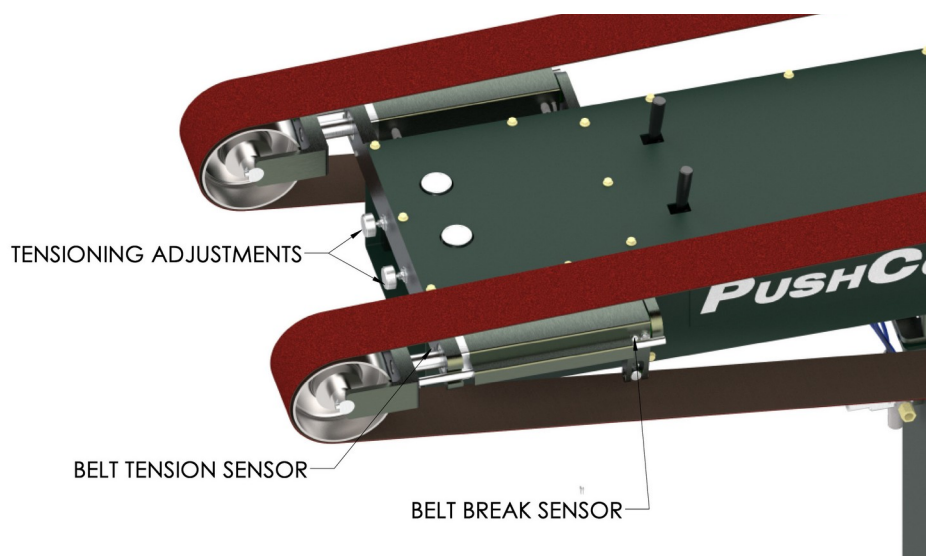


Figure 4: Tensioning Adjustments and Belt Break Sensors

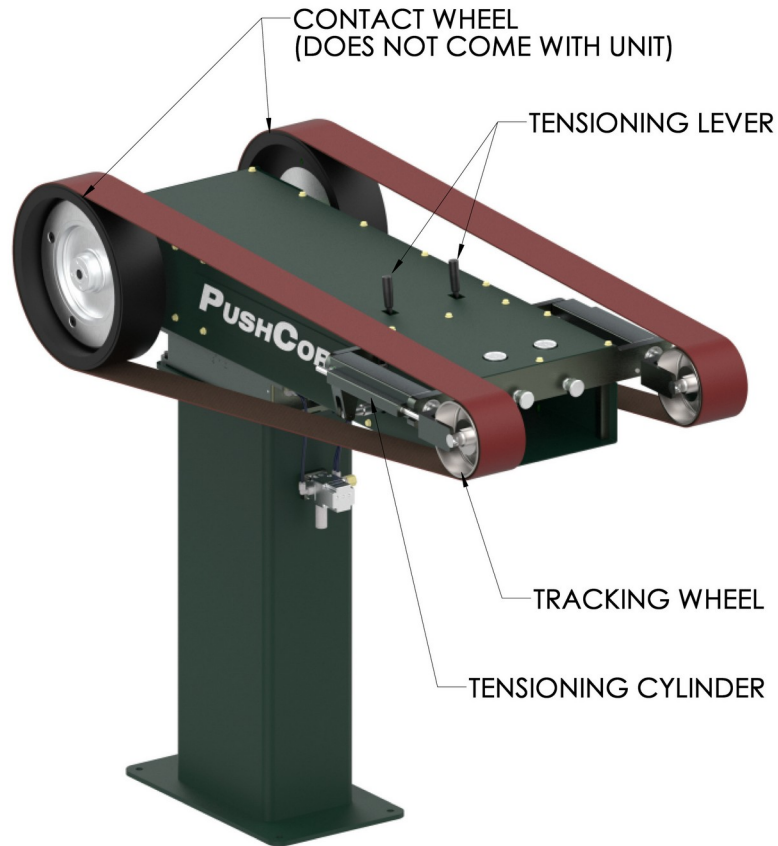


Figure 5: Belt Tensioning Components

4.2 Slack Arm

An optional slack/platten arm can be mounted inline with the contact wheel to provide longer abrasive life (148" [3759.2 mm]) and flexibility in the finishing process. The platten is a flat metal bracket shown in Figure 6. For parts that require a very flat surface, this component can be used by pressing the part against its face during the grinding process. This will help to maintain or create a flat surface. For more complex geometries the platten can be removed as seen in Figure 7. This will allow the belt to wrap around contoured geometries and make it easier for blending processes. The slack/platten arm can be added to one or both sides depending on the application. It is not necessary to have a symmetrical set up with a slack/platten arm used on both side.

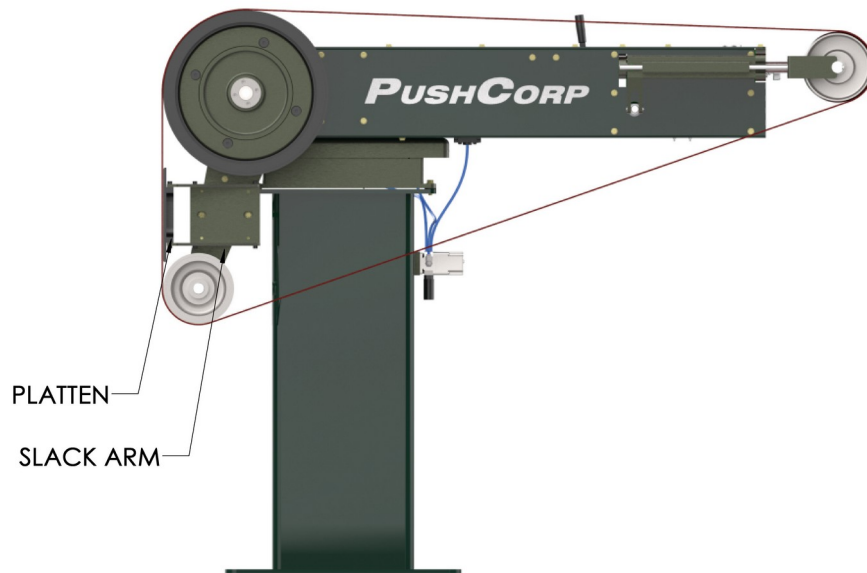


Figure 6: Slack Arm with Platten

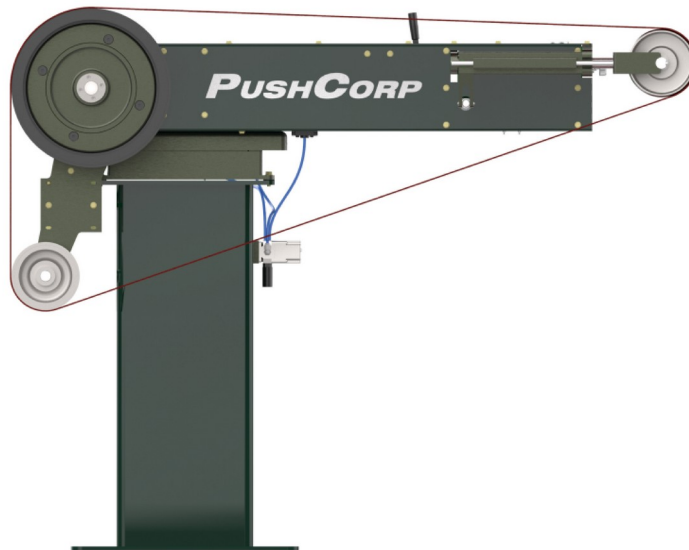


Figure 7: Slack Arm without Platten

4.3 Extended Contact Wheel

An extended contact wheel can be mounted for applications that require a finer touch or a more accessible abrasive face. The extension allows the operator to reach surfaces located in harder to reach areas due to the smaller contact wheel. The smaller wheel also provides the advantage of a smaller contact area which allows for finer finishing. Similar to the platten arm, the extended contact wheel can be used on just one side.

SBS80 Contact Wheel Extension



Figure 8: SBS82 Contact Wheel Extension

4.4 Belt Media Tracking

The SBS is equipped with linear actuators to adjust and hold the tracking of the belt media on the contact wheels. The equipped actuators are the only adjustment for the tracking – no manual adjustment is available. The user adjusts the tracking wheel by extending or retracting the linear actuator; causing the belt to track side to side on the contact wheel.

The belt can only be tracked while the contact wheel is rotating. 500 RPM is the recommended contact wheel speed for belt track adjustment. Attempting to track at higher RPM will cause the belt to track too quickly.

The two sides of the SBS track separately, so the user must take care which side to adjust.

The linear actuators cannot be back-driven, and will hold their positions when set.

4.5 Achieving Desired Force

The SBS82 uses a passive *80 Series* AFD to supply a compliant force from 2 to 115 lbs. (8 to 511 N). The passive force device requires the user to provide regulated air pressure to achieve a desired force output at the Contact Wheels. Use the following equations to determine the pressure required to achieve the desired output force:

$$F_a = (1.4 \times P_s) \quad \text{English units}$$

$$F_{am} = (89 \times P_s) \quad \text{Metric units}$$

Where:

F_a = Net applied force (lbs.) at Contact Wheels

F_{am} = Net applied force (N) at Contact Wheels

P_s = Supply pressure (psi or bar)

PushCorp includes an electronic regulator standard in their quote. This will allow customers to adjust the force electronically during the operation. If the force is not changed throughout the process a manually adjustable pressure regulator may be sufficient. The accuracy of the force output is directly related to the precision and quality of the pressure regulator. For the most precise force output a regulator that operates in a limited range (i.e., 0-15 psi) is required.

4.6 Achieving Desired Belt Media Speed

If your unit was purchased with the S724 without a control panel (BSRCON), the Belt Media speed and Output Shaft rpm is controlled via a +/- 10 VDC analog signal. This is applied to pins X3B9 (-) and X3B10 (+). The user must scale the command voltage to the servo motor amplifier from 0 to 10 Volts, which equates to a Belt Media speed of 0 to 7330 SFPM (Surface Feet Per Minute). The user is responsible for determining the maximum speed for their Belt Media. The SBS82 is factory limited to operate at a maximum Output Shaft rotational speed of 2000 rpm (7330 SFPM Belt Media speed).

If the unit was purchased with the BSRCON, then the speed is controlled by Analog Output 1 shown in the I/O map in the BSRCON manual. There is a built in analog card inside that controls this value. In your robot program you can control this by setting the number of BITS that correspond with the desired control speed. 0 BITS will set the unit to 0 RPM and 30,000 will be the maximum shaft speed of 2,000 RPM (7330 SFPM Belt Media speed). From 0 to 2,000 RPM the BITS are scaled linearly. For more information, please reference the BSRCON manual.

4.7 Servo Motor Drive Belt Replacement

The SBS82 uses a 2:1 reduction timing belt drive to transfer power from the Servo Motor to the Contact Wheels. This drive incorporates a high-strength Gates Poly Chain GT2 belt, PushCorp Part No. PAR01889-1. Should this Drive Belt ever require replacement, contact PushCorp for the proper procedure.

4.8 Contact Wheel Replacement

Contact Wheels are not provided with the SBS82, as the user must determine the proper style and hardness for their specific application. The 14" diameter Contact Wheels are easily installed or replaced on the SBS82. They are available in different widths (1", 2", 3", or 4"), durometers (hardness), and surface types (plain or serrated). Using different width Contact Wheels on the SBS82 does not require any modifications to the unit. Contact Wheels should be ordered directly from the manufacturer, Contact Rubber Corp., 8635 198th Avenue, Bristol, WI, 53104, Tel: 262-857-2361, Fax: 262-857-9483. The SBS82 uses C-134 type Contact Wheels. There are four (4) M10x1.5 Flat Head Socket Screws on the Contact Wheel hub that must be removed to change the Contact Wheel. After removing the screws the hub will split allowing the Contact Wheel to be easily removed. Install a Contact Wheel on the hub and replace the removed hub and the four (4) screws. Tighten the screws to 30 ft.-lbs. (40 N·m).

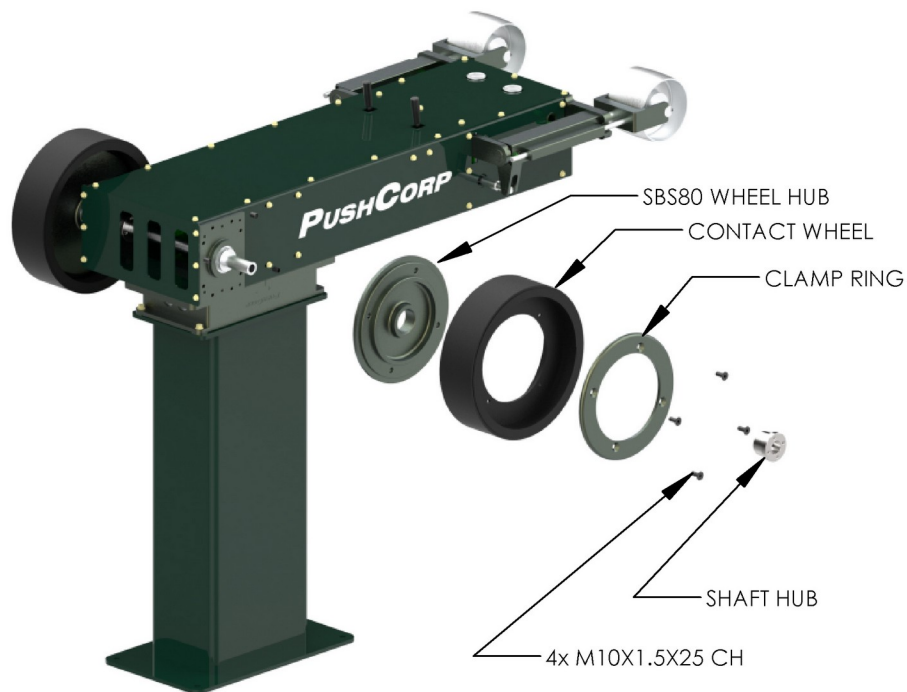


Figure 9: Contact Wheel Stack Up

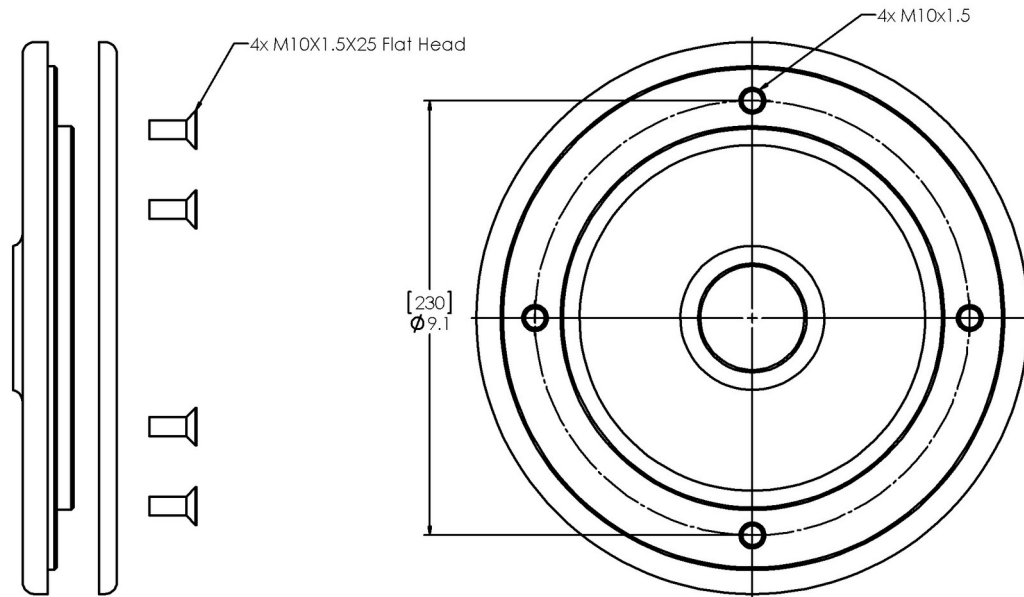


Figure 10: Contact Wheel Dimensions

4.9 ACME Adapter Hub

PushCorp can supply adapter hubs to allow a larger selection of application options. Contact wheel removal and adapter hub installation can be performed by using the following steps:

1. Loosen the mounting screws of the shaft hub
2. Slide the contact wheel assembly off of the SBS82 shaft
3. Slide the adapter hub onto the SBS82 shaft and torque the mounting screws to 18 N·m
4. Mount the abrasive concentrically along the SBS82 shaft
5. Torque the ACME nut

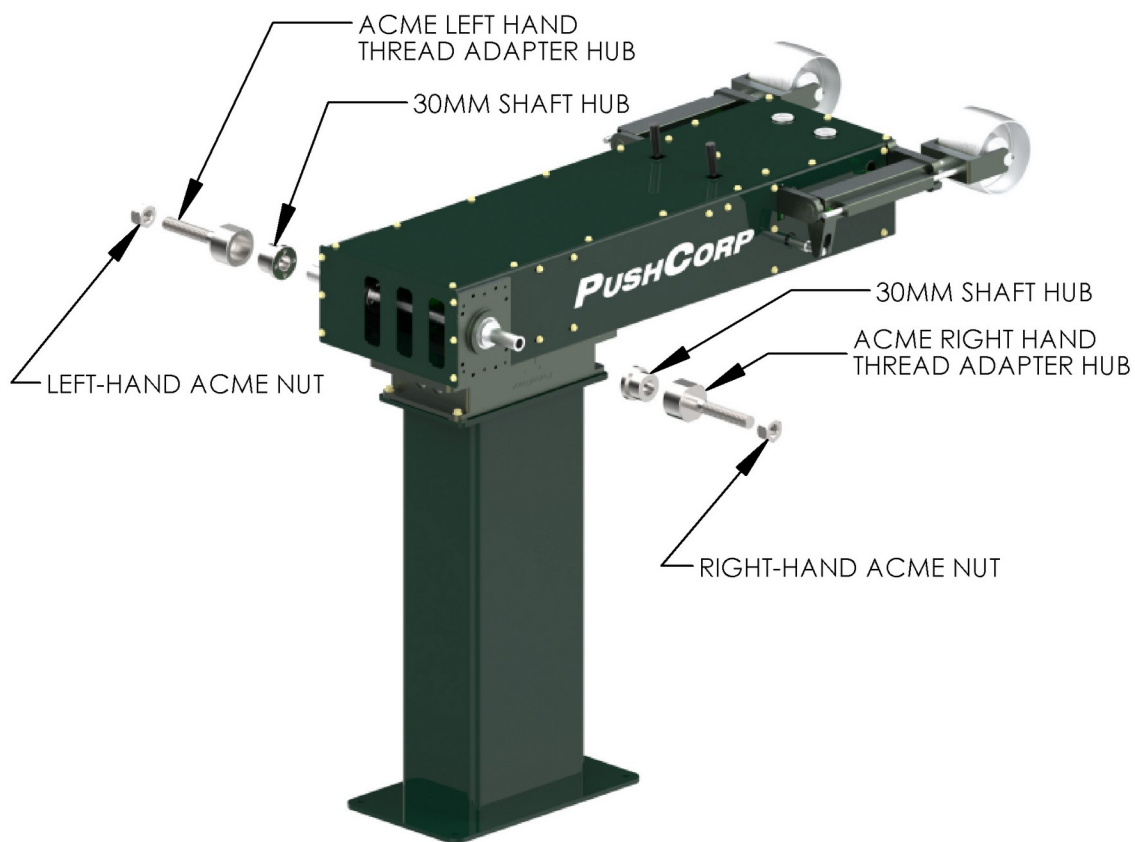


Figure 11: Left Hand-Right Hand Component Stack Up

Please refer to the table below for the PushCorp P/N for the left and right hand adapter hub assemblies.

Table 1: Adapter Part Numbers

Adapter Diameter	Left-Hand	Right-Hand
1"	ASM03309	ASM03308
1-1/4"	ASM03307	ASM03006
2"	ASM03005	ASM03004

4.10 Contact Wheel Position Feedback

The SBS82 comes equipped with an internal potentiometer that provides a 0-10 volt signal based on the linear position of the Contact Wheels. The voltage signal is at a minimum value when the Contact Wheels are pushed back against the rubber stops, and a maximum value when the Contact Wheels are pulled forward against the rubber stops. The total linear compliant stroke is 1.6 in. (40 mm).

Depending on the cable supplied, reading this value will be slightly different. This is based on whether you ordered your system with the BSRCON control panel or not. The linear position signal must be calibrated for each installation. Based on the cable provided, the calibration is easily accomplished using one of the following two procedures.

4.10.1 Without BSRCON - 575AG-811M14-897G

1. Attach the High-Flex Cable to the Carriage Position Feedback Connector.
2. Turn off the supply air to the SBS82
3. Move the Contact Wheels to the full rearward (negative) position.
4. Read the voltage signal on the POSN Position Signal output. Record this voltage for future reference. This will be referred to as Vneg.
5. Move the Contact Wheels to the full forward (positive) position.
6. Read the voltage signal on the POSN Position Signal output. Record this voltage for future reference. This will be referred to as Vpos.
7. The position of the Contact Wheels can now be determined by measuring the current voltage on the POSN Position Signal output (Vm) and inserting the value into the following equation:

$$p = 1.6 \text{ inch} \times \left(\frac{V_m - V_{negative}}{V_{pos} - V_{negative}} \right) \quad \text{English Units}$$

$$p = 40 \text{ mm} \times \left(\frac{V_m - V_{negative}}{V_{pos} - V_{negative}} \right) \quad \text{Metric Units}$$

Where,

$p = \text{Contact Wheel Position (inch, mm)}$

$V_m = \text{Voltage measured on POSN signal wire (V)}$

$V_{negative} = \text{Calibrated voltage at fully negative Carriage position (V), (0 inch, 0 mm)}$

$V_{pos} = \text{Calibrated voltage at fully positive Carriage position (V), (1.6 inch, 40 mm)}$

+V

Supply Voltage - The supply voltage input for the SBS82. The supply should be well regulated to +/- 10%. The load resistance is $3000 \Omega \pm 30\%$. The supply voltage should not exceed 24VDC. A 12VDC supply will yield a POSN signal output voltage between 0 and 10VDC.

COM

Supply Common - The supply common input for the SBS82. It should be connected to the common terminal for the supply as well as the analog common for the position signal.

POSN

Position Signal - The linear potentiometer signal output. This voltage signal represents the Carriage position. The device connected to this output should have an input impedance of equal to or greater than $100k\Omega$. The linear potentiometer signal is not calibrated from the factory but is linear to $\pm 1.0\%$.

SHLD

Cable Shield - The drain wire for the overall cable shield. Connect this wire to the central grounding point of the panel.

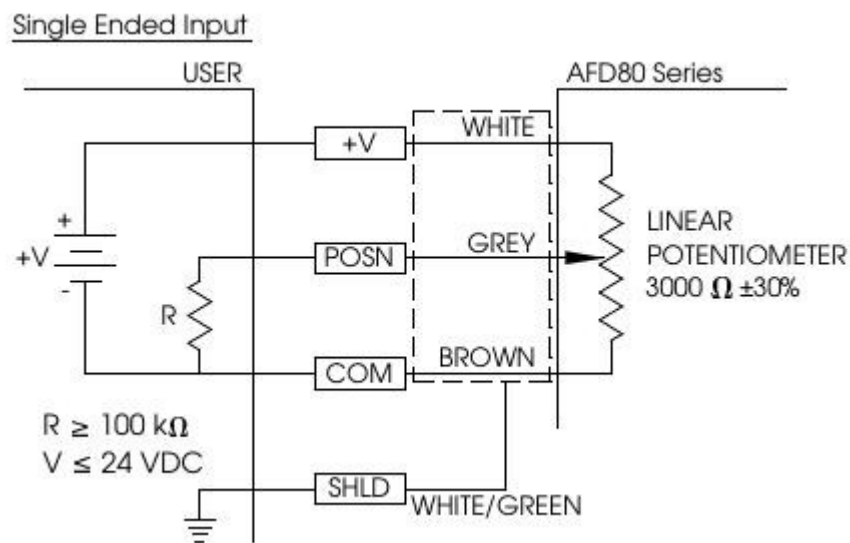


Figure 12: Position Feedback Wire Diagram - 575AG-811M14-897G

NOTE: Care should be taken to ensure that all signal and voltage source commons are connected together on the user end to avoid D.C. offset errors.

4.10.2 With BSRCON - 983G-4684M14-982G

For more detailed information refer to the BSRCON manual found in Products → Control Cabinets → BSRCON-EIP

1. Attach the High-Flex Cable to the Carriage Position Feedback Connector on the SBS and the PL4 connector on the bottom of the BSRCON panel.
2. Turn off the supply air to the SBS82
3. Move the Contact Wheels to the full rearward (negative) position.
4. Read the signal on Analog In – 3. Record this voltage for future reference. This will be referred to as Vneg.
5. Move the Contact Wheels to the full forward (positive) position.
6. Read the voltage signal on Analog In – 3. Record this voltage for future reference. This will be referred to as Vpos.
7. The position of the Contact Wheels can now be determined by measuring the current signal on Analog In - 3 (Vm) and inserting the value into the following equation:

$$p = 1.6 \text{ inch} \times \left(\frac{V_m - V_{negative}}{V_{pos} - V_{negative}} \right) \quad \text{English Units}$$

$$p = 40 \text{ mm} \times \left(\frac{V_m - V_{negative}}{V_{pos} - V_{negative}} \right) \quad \text{Metric Units}$$

Where,

$p = \text{Contact Wheel Position (inch, mm)}$

$V_m = \text{BITS measured on Analog Input 3}$

$V_{negative} = \text{Calibrated voltage at fully negative Carriage position (BITS), (0 inch, 0 mm)}$

$V_{pos} = \text{Calibrated voltage at fully positive Carriage position (BITS), (1.6 inch, 40 mm)}$

4.11 Electrical Connections

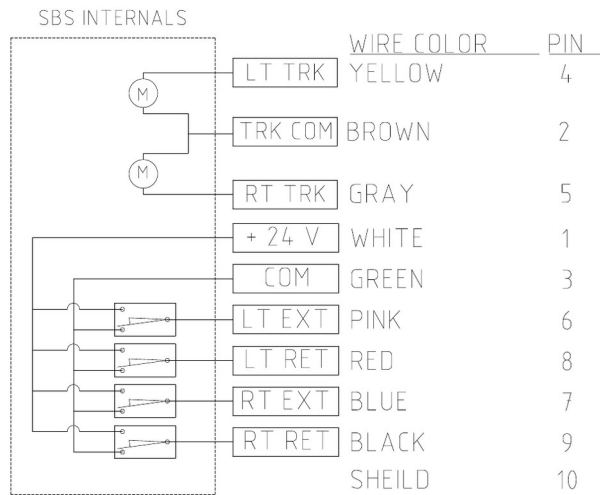


Figure 13: SBS Control Cable Connections

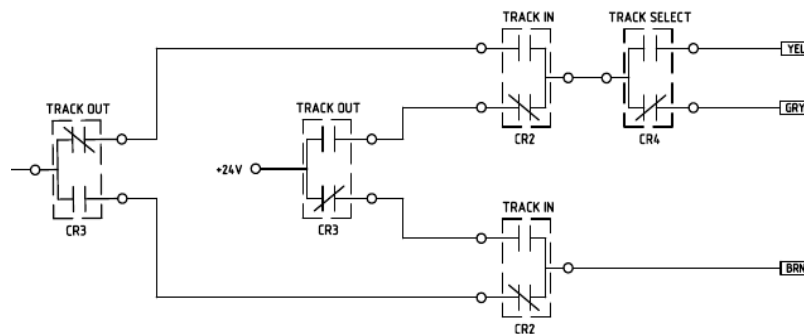


Figure 14: Relay Example

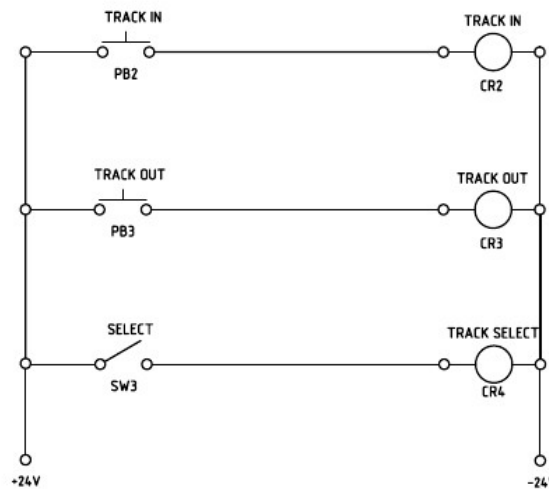


Figure 15: Contact Example

4.11.1 Default Electrical Connections

PUSHCORP, INC.

P.O. Box 181915 • Dallas, TX 75218 • Tel 972.840.0208 • WWW.PUSHCORP.COM

Kollmorgen Default Configuration

This amplifier is already properly configured for a PushCorp spindle. No further configuration is required if the below settings will work for your application.

Analog Velocity Mode

+/-10VDC Analog Input for command velocity

Analog Interface

Connector	Pin	Function
X3B	9	-Analog-In 1 – Command Velocity
X3B	10	+Analog-In 1 – Command Velocity
X3B	13	AGND - Shield

Digital Interface

Connector	Pin	Function
X3A	1	Enable – Enable Drive Output
X3A	2	Digital-In 1 – Fault Reset
X3A	6	Digital-Out 1 – Fault Present
X3A	7	Digital-Out 2 – At Zero Speed
X3B	14	BTB/RTO – Ready To Operation (Dry Contact)
X3B	15	BTB/RTO – Ready To Operation (Dry Contact)
X3B	16	DGND – Digital 0VDC Common

Optional Analog Output (MUST HAVE ANALOG CARD INSTALLED IN SLOT 3)

Connector	Pin	Function
X3C	17	Analog Out 1 - Velocity Feedback
X3C	18	AGND
X3X	19	Analog Out 2 - Motor Load Feedback
X3C	20	AGND

For all other questions please contact:

PushCorp Tech Support: 1.972.840.0208, 8am – 5pm Central Time

Kollmorgen Tech Support: 1.540.633.3545, 8am – 5pm Eastern Time

ASM02386-3

5.0 Technical Specifications

Maximum Applied Force:	115 lbs. (511N)
Torque:	14.7 lb-ft [20 N·m]
Belt Speed:	100-7330 SFPM
Contact Wheels:	1"-4" Widths, 14" Dia
Abrasive Belt Media:	1"-4" Widths, 132" Length
Weight:	450 lbs. (204 kg)
Force Scale Factor:	1.4 lbs/psi (890 N/MPa)
Compliant Stroke:	1.6 in. (40 mm)
Supply air:	Non-lubricated, Dry, 5µm Filtered, 100 psi (0.7 MPa) Max.
Supply Voltage:	S724 - 240-480 VAC, 3-Phase BSRCON - 480 VAC, 3-Phase
	<i>Please contact techsupport@pushcorp.com for supply voltages less than 480V</i>
Max. Cont. Current:	30 Amps
Max. Peak Current:	60 Amps (2 Seconds)

Specifications subject to change without notice.

Fastener Tightening Torque Specs					
Fastener Size	Torque			Minimum Depth	
	in.-lbs.	ft.-lbs.	N·m	in.	mm
M4 x .7	50	4.2	5.6	0.17	4.3
M5 x .8	85	7.1	9.6	0.21	5.3
M6 x 1	140	11.7	15.8	0.25	6.3
M8 x 1.25	348	29.0	39.3	0.33	8.4
M10 x 1.5	600	50.0	67.8	0.41	10.5