

### Integrally Geared Centrifugal Blower Controls

#### Description

The sLOC-GB™ local control panels are versatile for any geared blower application and the design provides simplicity without sacrificing configurability. Control of the blower can be manual or automated and the system easily integrates with a master control panel or plant SCADA.

Lone Star Blower and Compressor has developed state of the art surge prediction and detection algorithms which are included with every sLOC-GB™ local control panel. Combined with active surge avoidance techniques, these added protections surpass what is offered by other market participants and ensure maximum reliability and system up-time.

#### Control Methods

Inlet Guide Vane, Discharge Guide Vane, Speed, Blow-Off Valve

#### Control Modes

Capacity %, Discharge Pressure, Unloaded, Other Process Variable

#### Available Protections & Functionality

Active Surge Avoidance  
Surge Prediction & Detection  
Full Blower Monitoring  
Automatic & Manual Auxiliary System Controls

#### Documentation, Testing & Startup Services

Operation Manuals  
System Integration Support Documents  
Factory Acceptance Testing (witnessed available)  
Installation Support  
Commissioning & Training



#### Standard Panel Specifications\*

Approvals ..... UL / ULC 508A  
Warranty..... Lifetime Warranty with Standard Hardware  
Enclosure Size..... 60H x 36W x 10D  
Enclosure Rating ..... TYPE 4  
HMI ..... 10" Phoenix Contact WP 6101-WXPS

##### PLC

Model ..... Phoenix Contact PLCnext AXC F 3152  
Programming Software... PLCnext Engineer (Free Software)  
CPU ..... Intel Atom™ x5-E3930, 2x 1.3GHz  
Internal Memory ..... 1GB  
Expansion Memory ..... SD Card - 2GB  
Communications ..... ProfiNet, EtherNet/IP, Modbus TCP, MQTT,  
OPC UA (more options available)  
Ethernet Connections..... x3 RJ45  
Operating Temperature ... -25°C to 60°C

##### I/O

Discrete Inputs..... x32  
Discrete Outputs ..... x16  
Analog Inputs..... x16  
Analog Outputs ..... x4  
RTD Inputs ..... x16

**\*Customization may affect the standard listed specifications**

#### Other Product Features

E-Stop & Pilot Devices  
High-Resolution Analogs  
LED Fuse Blocks  
120V Convenience Outlet  
Lockable Disconnect (480V)  
Electrical Surge Protection  
Isolated Instrument Grounds

#### Available Options

Alternate PLC Brand (Allen Bradley, Siemens, Schneider, Other)  
Alternate HMI Brand (Allen Bradley, Siemens, Schneider, Other)  
Type 4X or Type 12 Enclosure  
Hinged HMI Cover  
Interior Light  
Alarm Beacon or Siren  
Pilot Devices - Push Buttons, Switches, or Indicator Lights  
Ethernet Switch - Managed or Unmanaged  
Cooling - Fans, Vortex Cooler, or Panel Mount A/C  
Panel Heater  
Purge Systems  
Other Approval Ratings

**NOTES:**

GL P&ID DRAWING PACKAGES ARE MADE UP OF FOUR SEPARATE DRAWINGS.  
EACH DRAWING PACKAGE SHOULD INCLUDE ONE DRAWING FROM EACH OF THE FOLLOWING CATEGORIES:

- L = LEGEND
- P = PROCESS
- B = BLOWER DETAIL
- O = OIL SYSTEM DETAIL

**ABBREVIATIONS:**

SL	=	SHIPPED LOOSE	HSFB	=	HIGH SPEED PINION SHAFT, FRONT BEARING
DE	=	DRIVE END	HSRB	=	HIGH SPEED PINION SHAFT, REAR BEARING
NDE	=	NON-DRIVE END	HSTB	=	HIGH SPEED PINION SHAFT, THRUST BEARING
GB	=	GEARBOX	LSFB	=	LOW SPEED DRIVE SHAFT, FRONT BEARING
HS	=	HIGH SPEED PINION SHAFT	LSRB	=	LOW SPEED DRIVE SHAFT, REAR BEARING
LS	=	LOW SPEED DRIVE SHAFT			

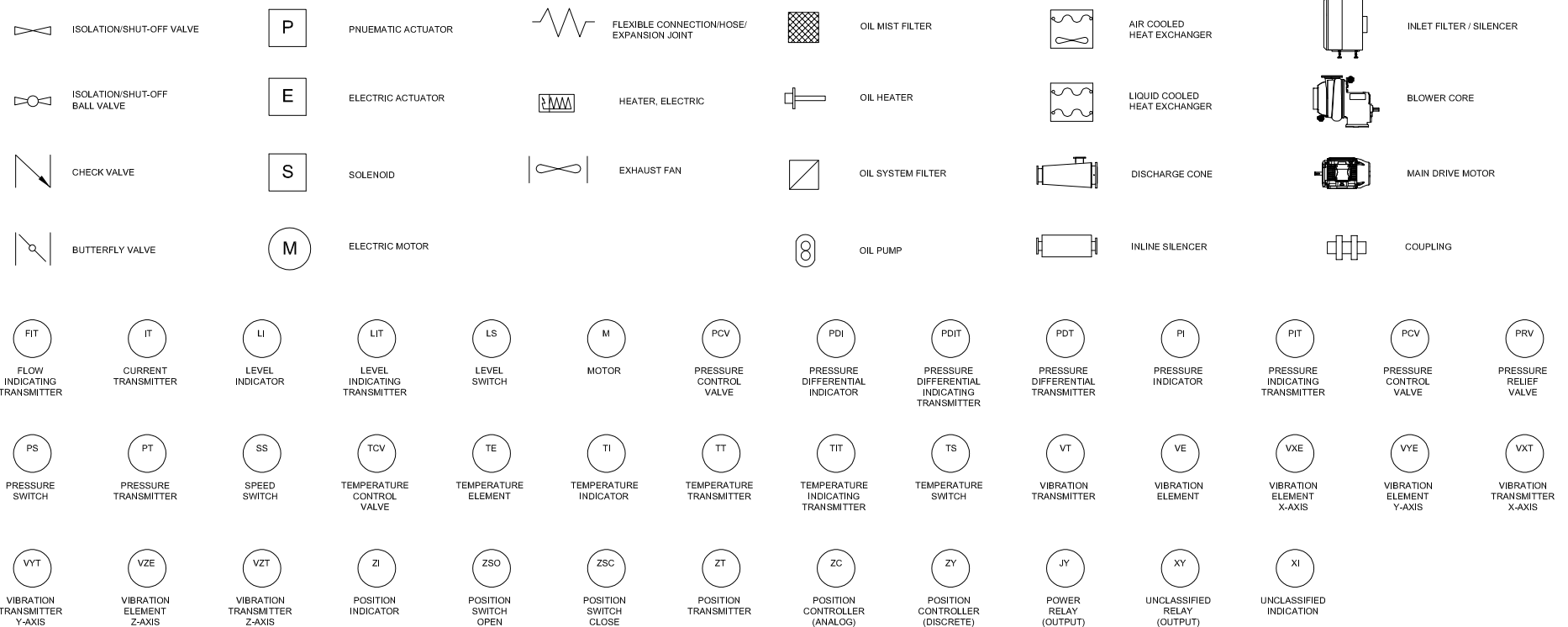
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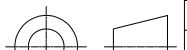
----- MECHANICAL CONNECTION

----- PROCESS FLOW

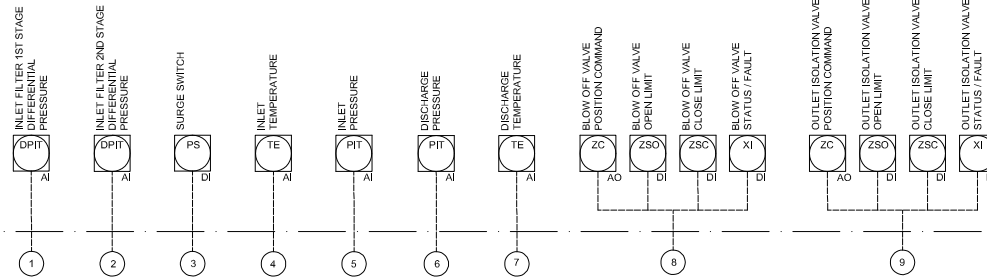
----- OIL SYSTEM FLOW

----- WATER SYSTEM FLOW

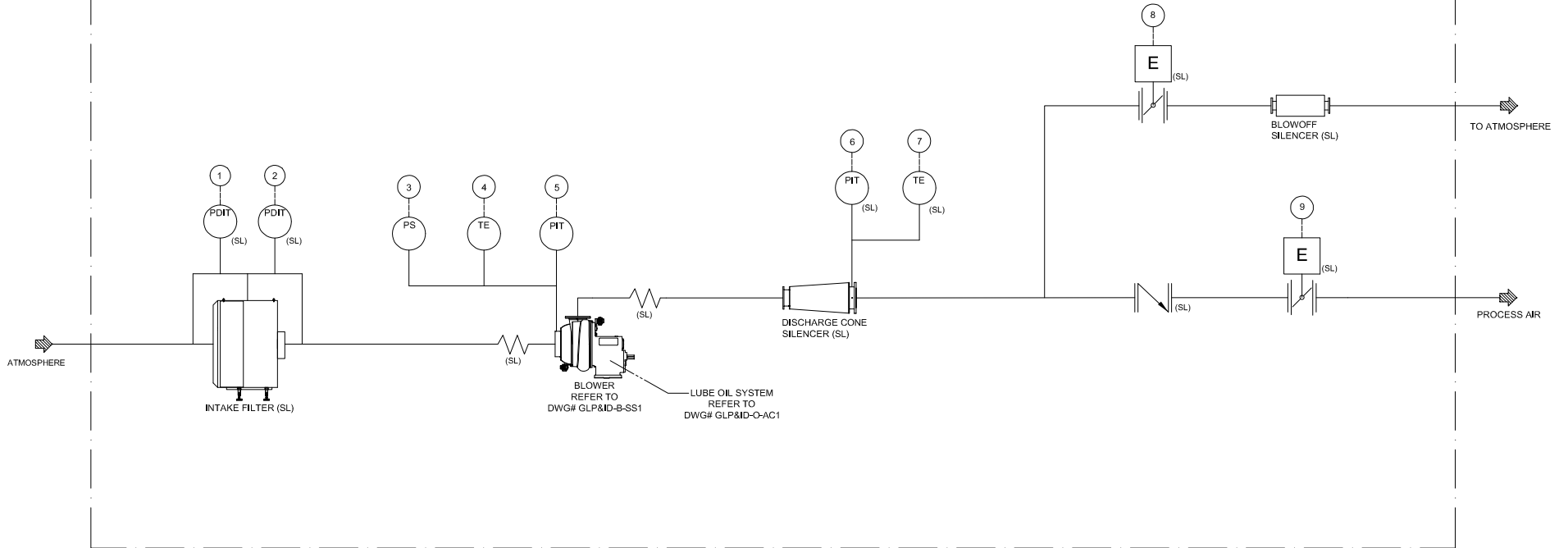



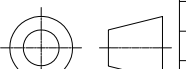

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				MANUFACTURING				SIZE		
				CONTROL				CAGE CODE	DWG NUMBER	REV
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# BLOWER LOCAL CONTROL PANEL

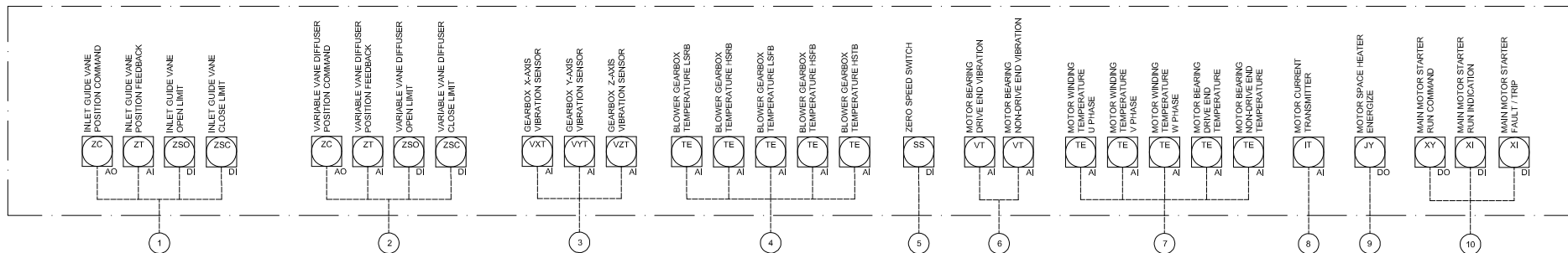


## BLOWER PACKAGE

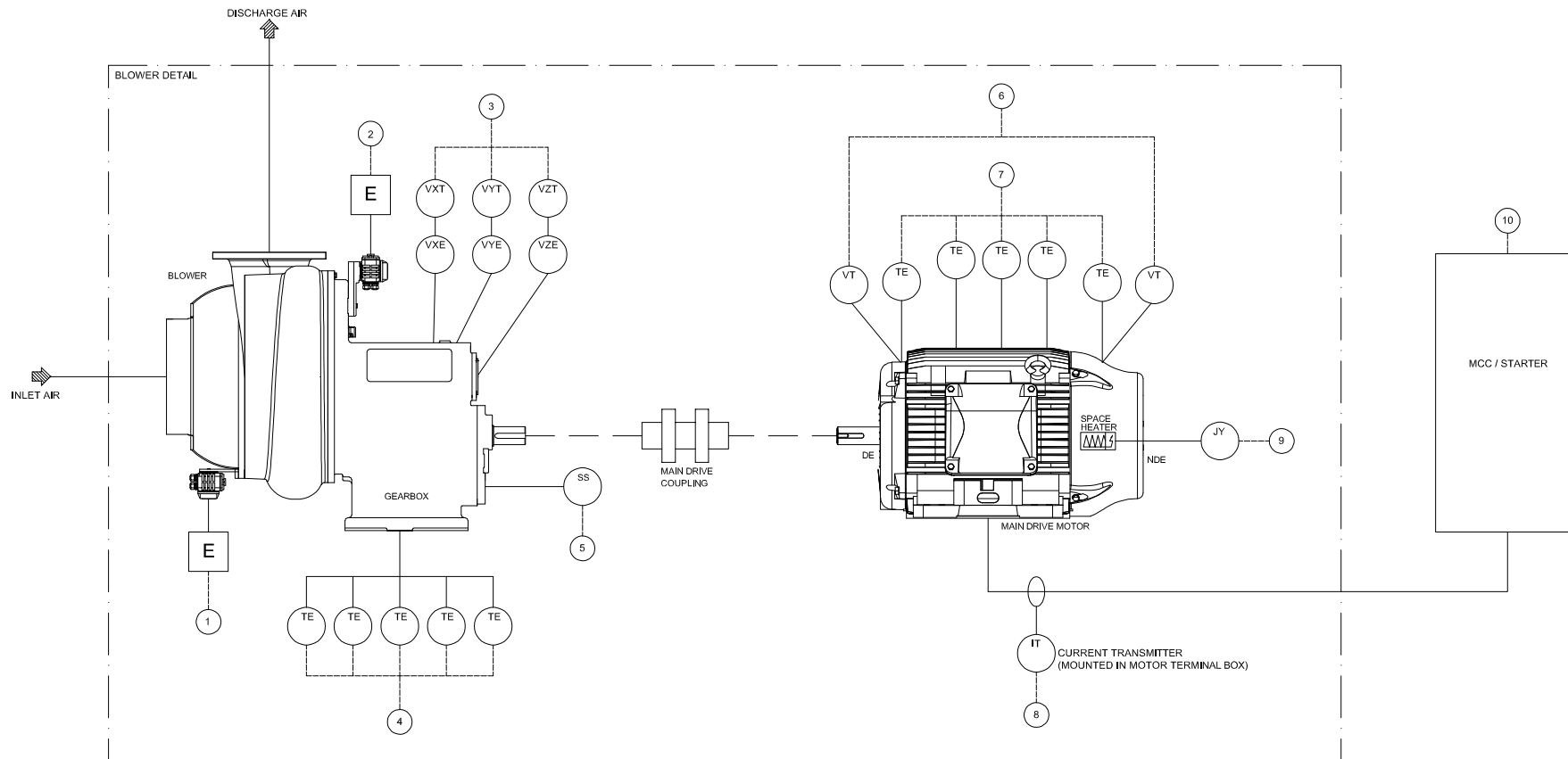




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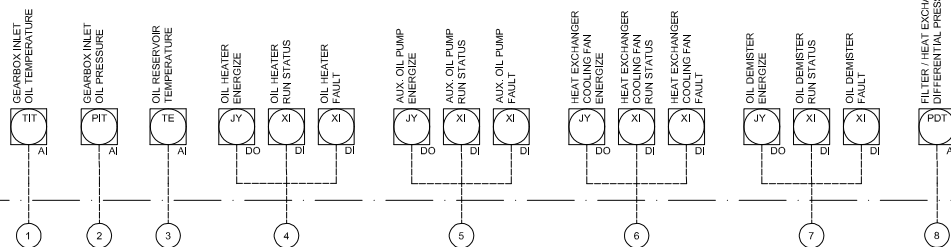
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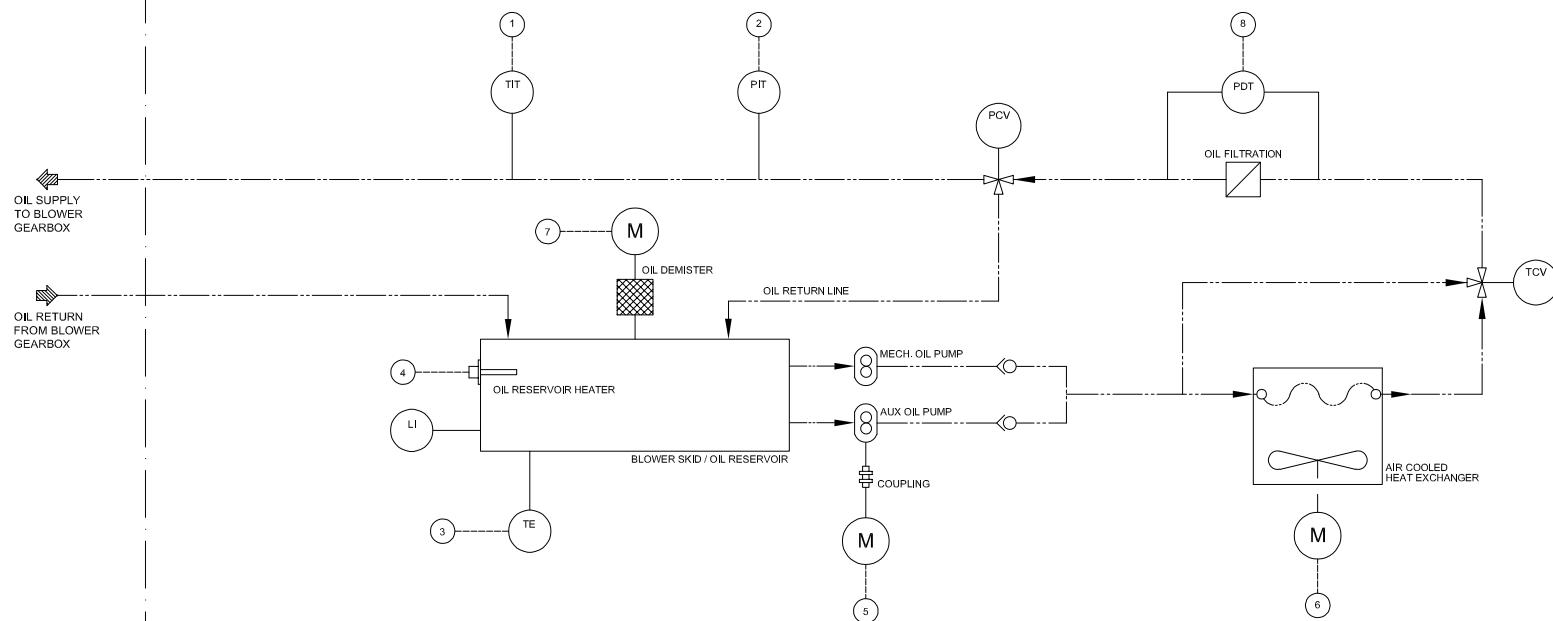
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				APPROVED							




BLOWER LOCAL CONTROL PANEL



BLOWER OIL SYSTEM



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		CONTROL								
		APPROVED								
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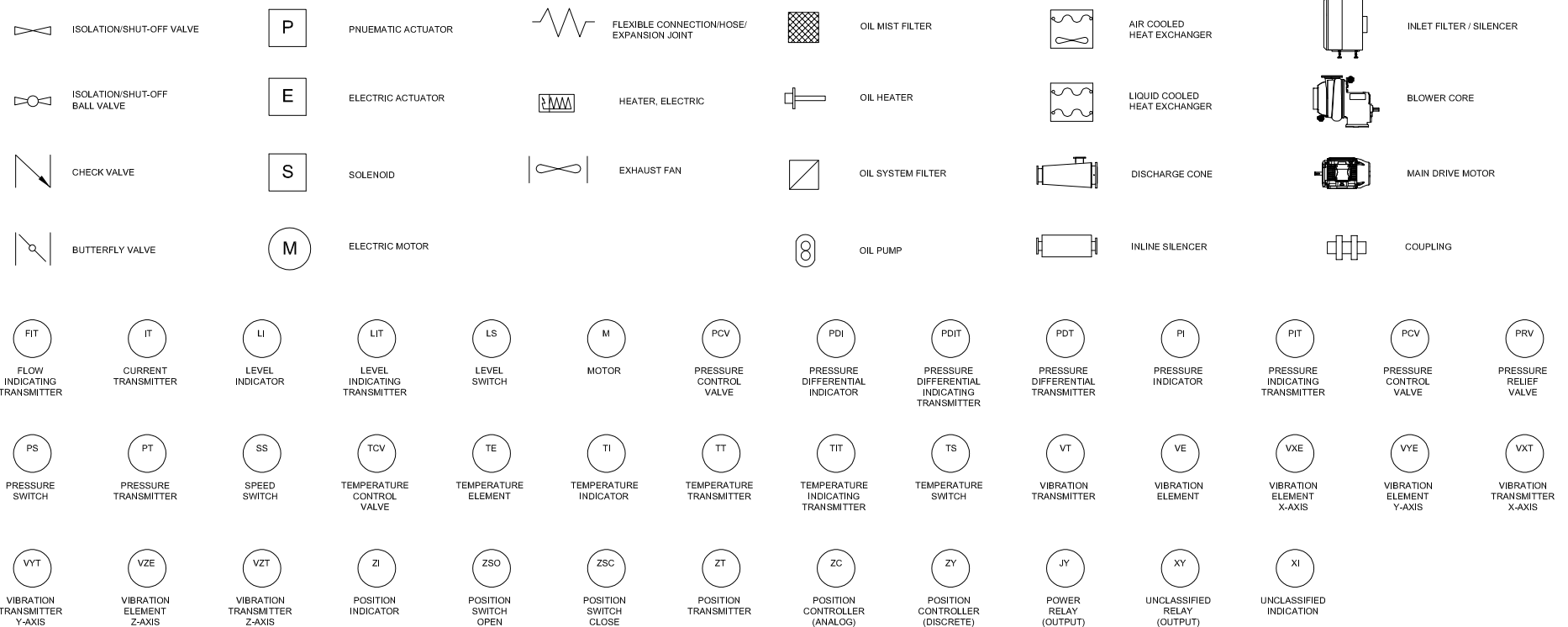
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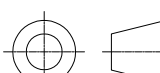
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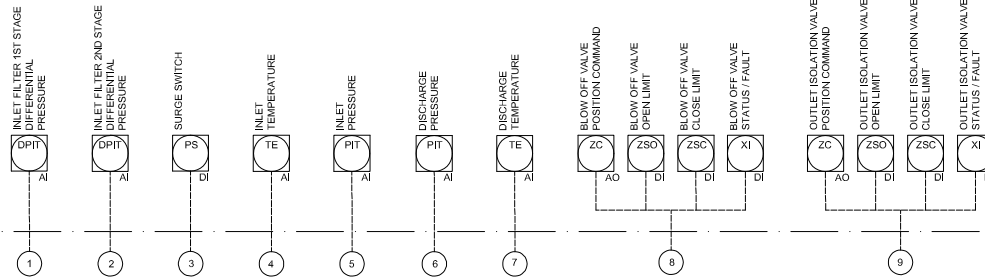
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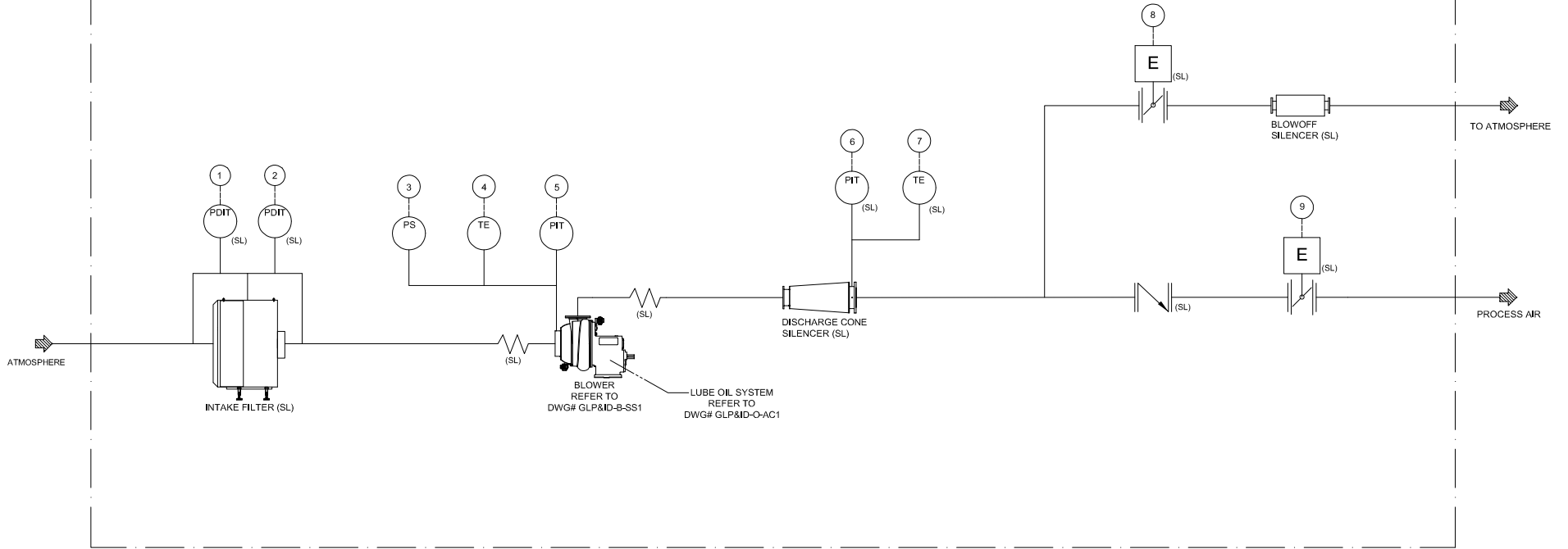



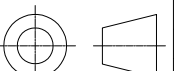
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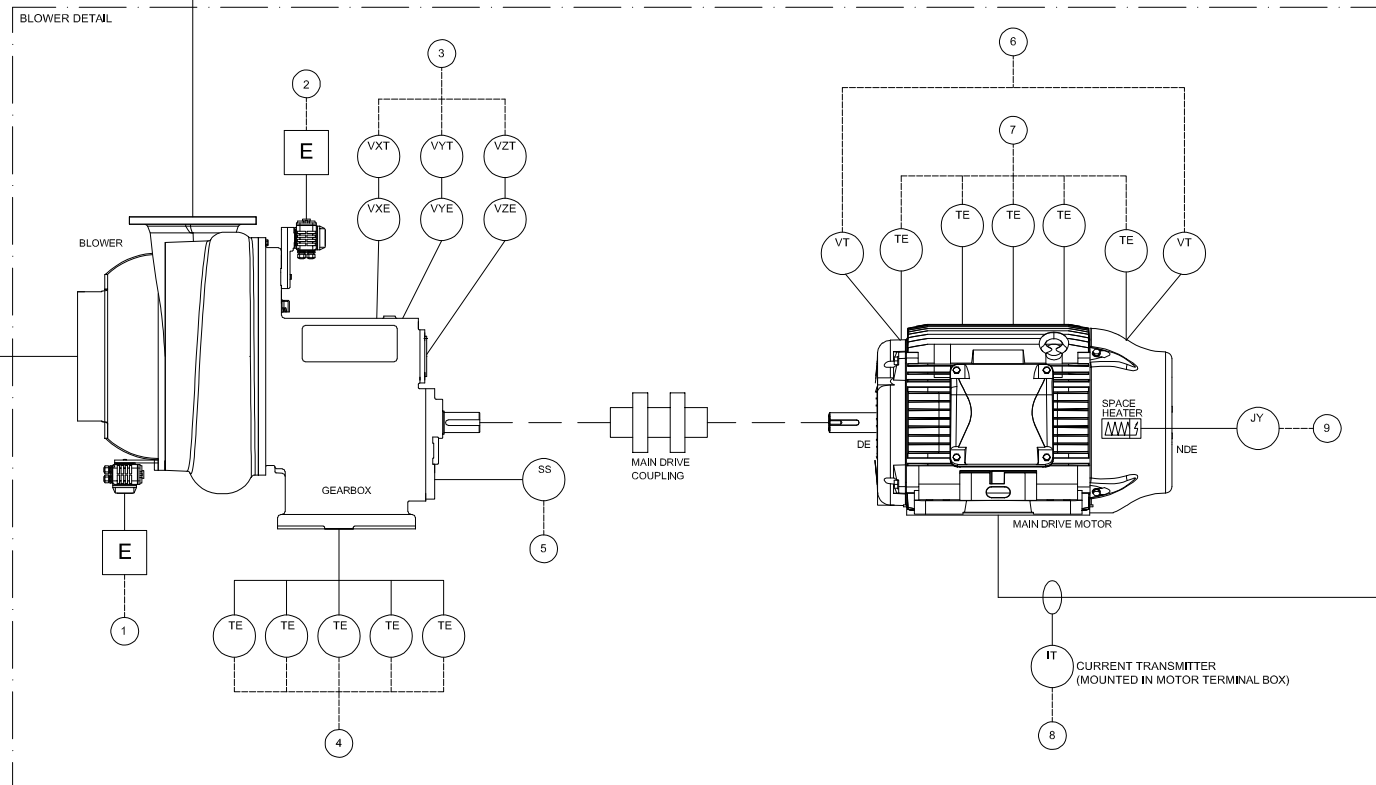
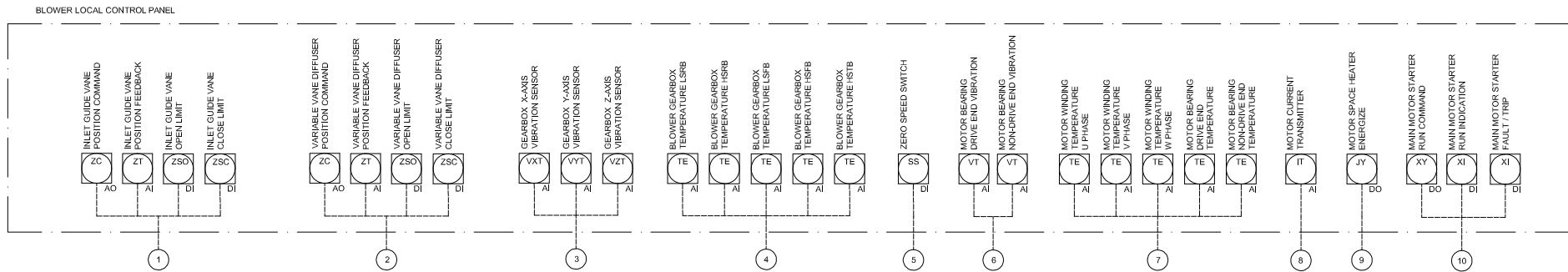
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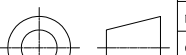


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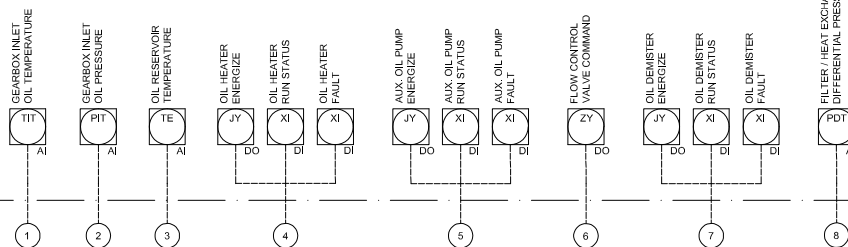


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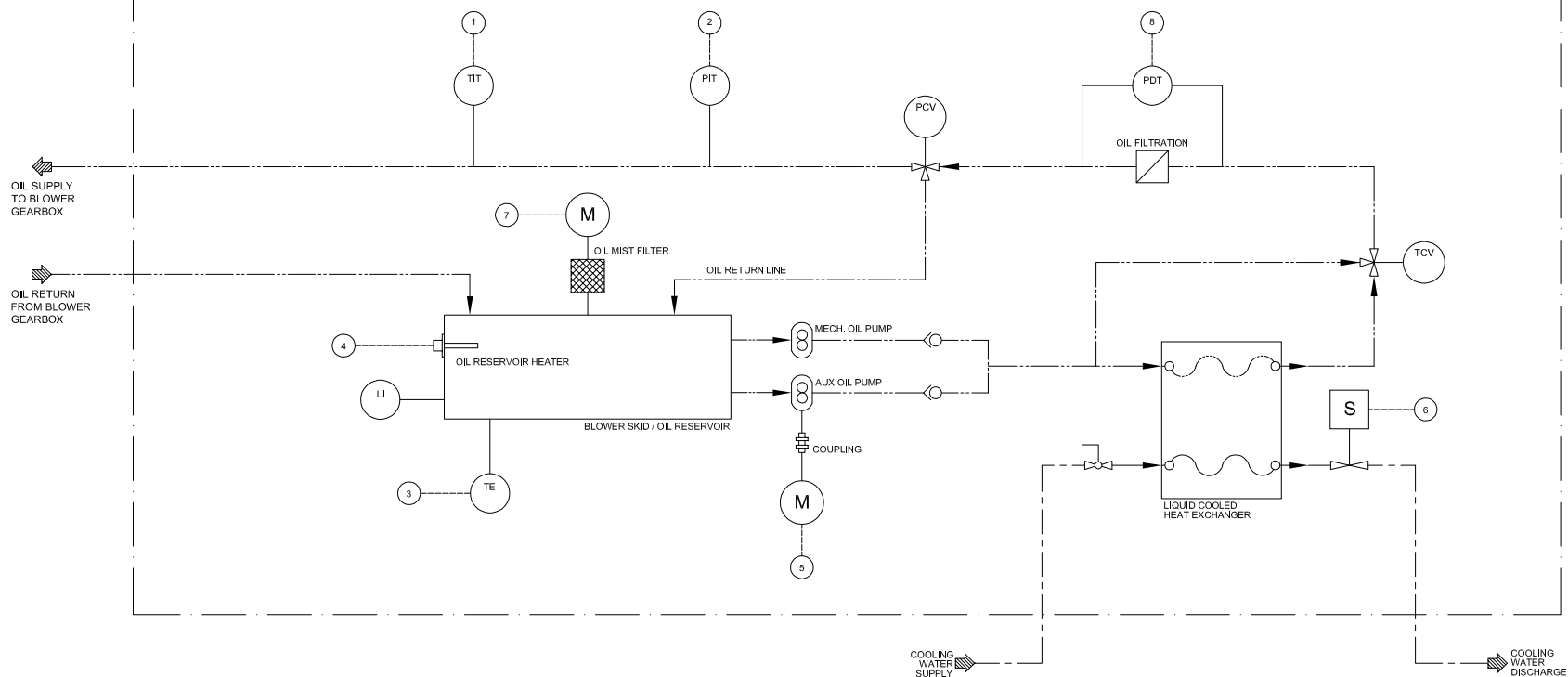




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BLOWER LOCAL CONTROL PANEL



BLOWER OIL SYSTEM



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