

How to Train Outside the Classroom: On-the-job and Machine-Specific Training in the 21st Century

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TPC Training



How comfortable would you be:

- Starting up this machine
- Identifying components and how they work
- Performing a change-over on this machine
- Fixing this machine if it broke down



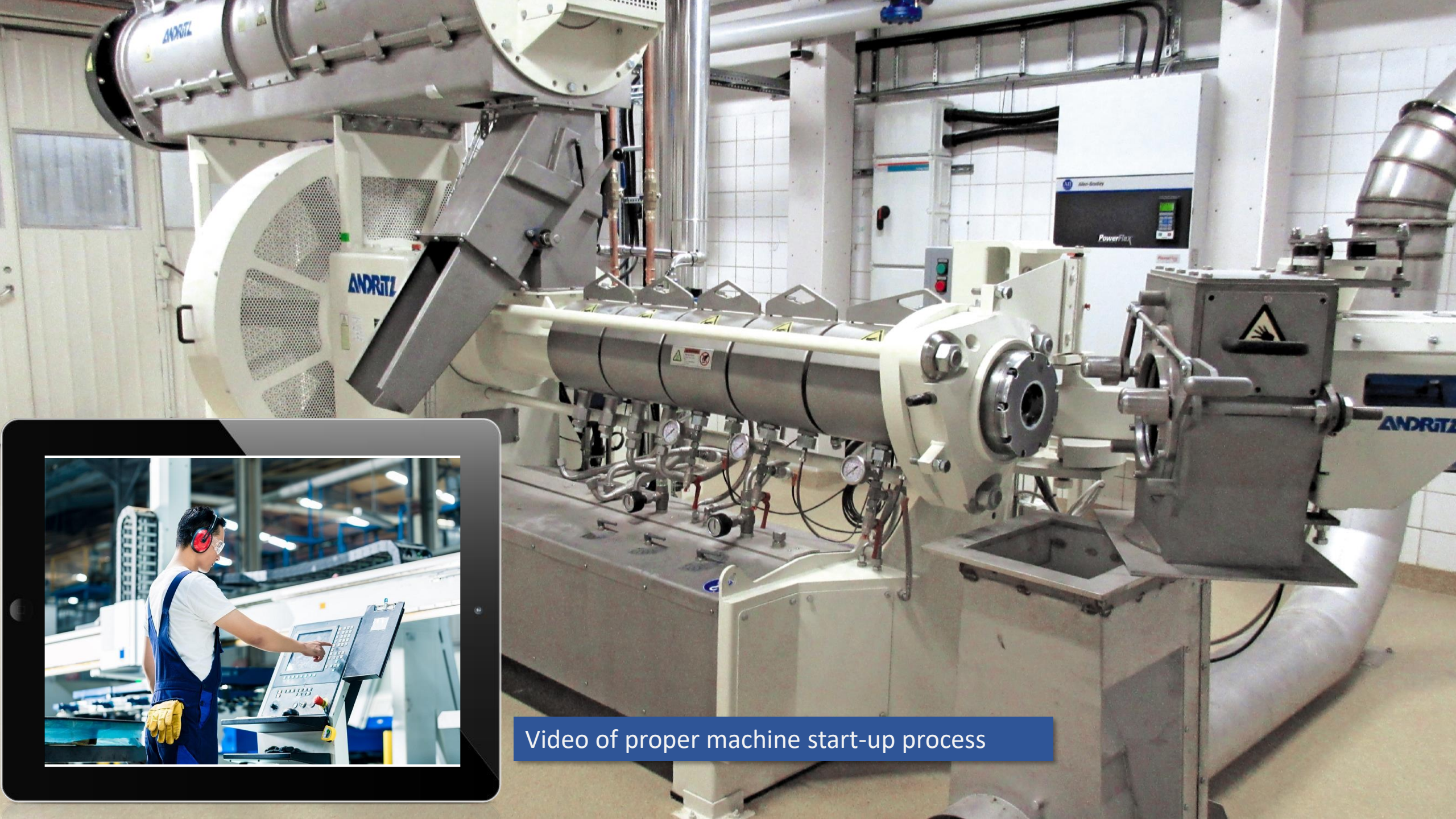
Job Shadowing?

Books and Binders?

“Trial by Fire”?

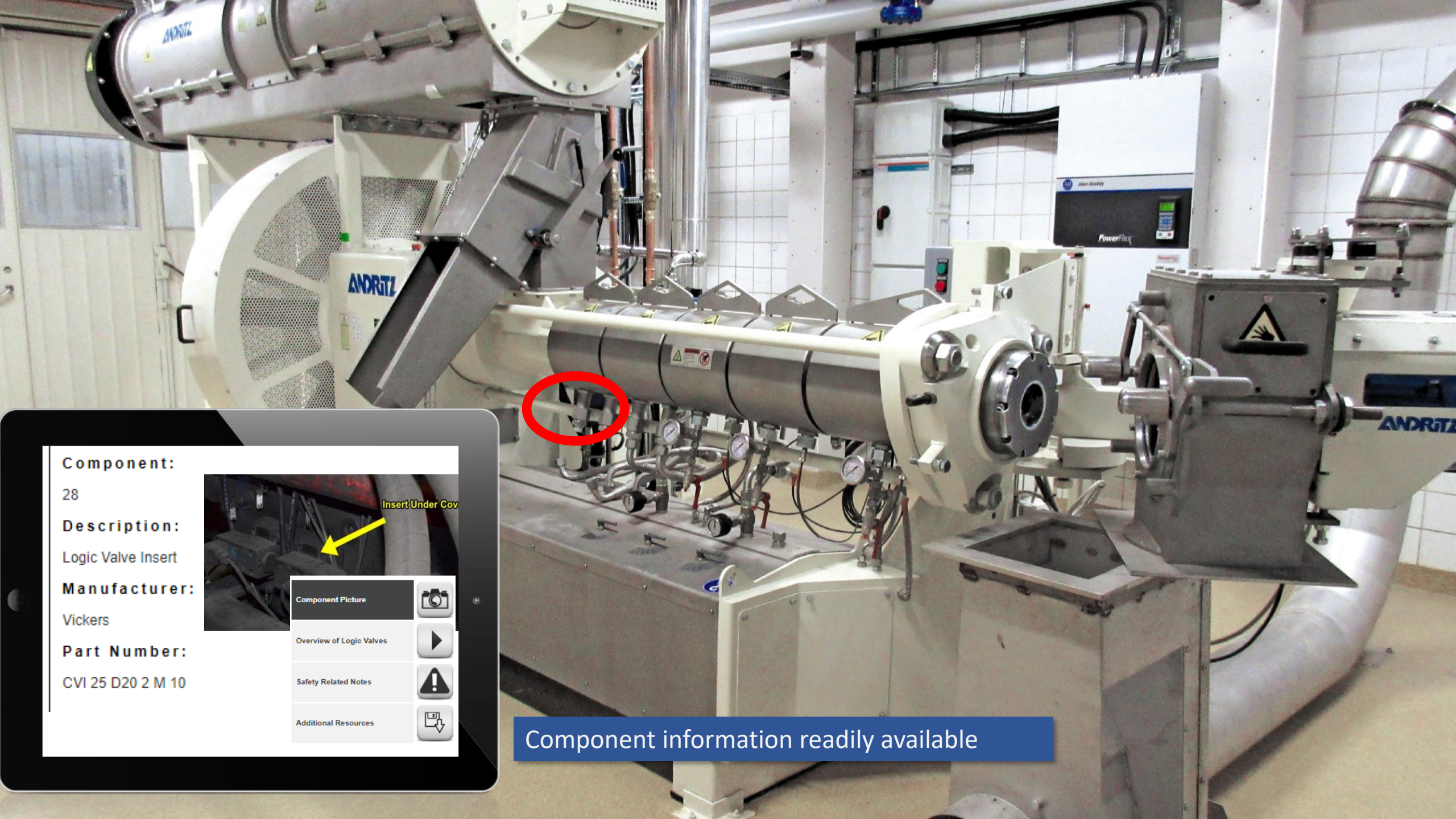


Use technology to accelerate and enhance on-the-job learning



Video of proper machine start-up process





Component:

28

Description:

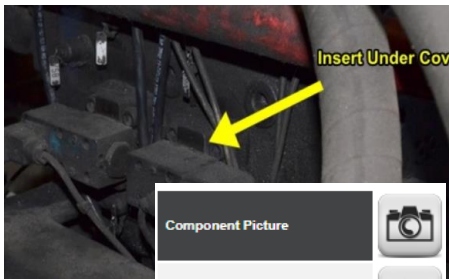
Logic Valve Insert

Manufacturer:

Vickers

Part Number:

CVI 25 D20 2 M 10



Component Picture



Overview of Logic Valves



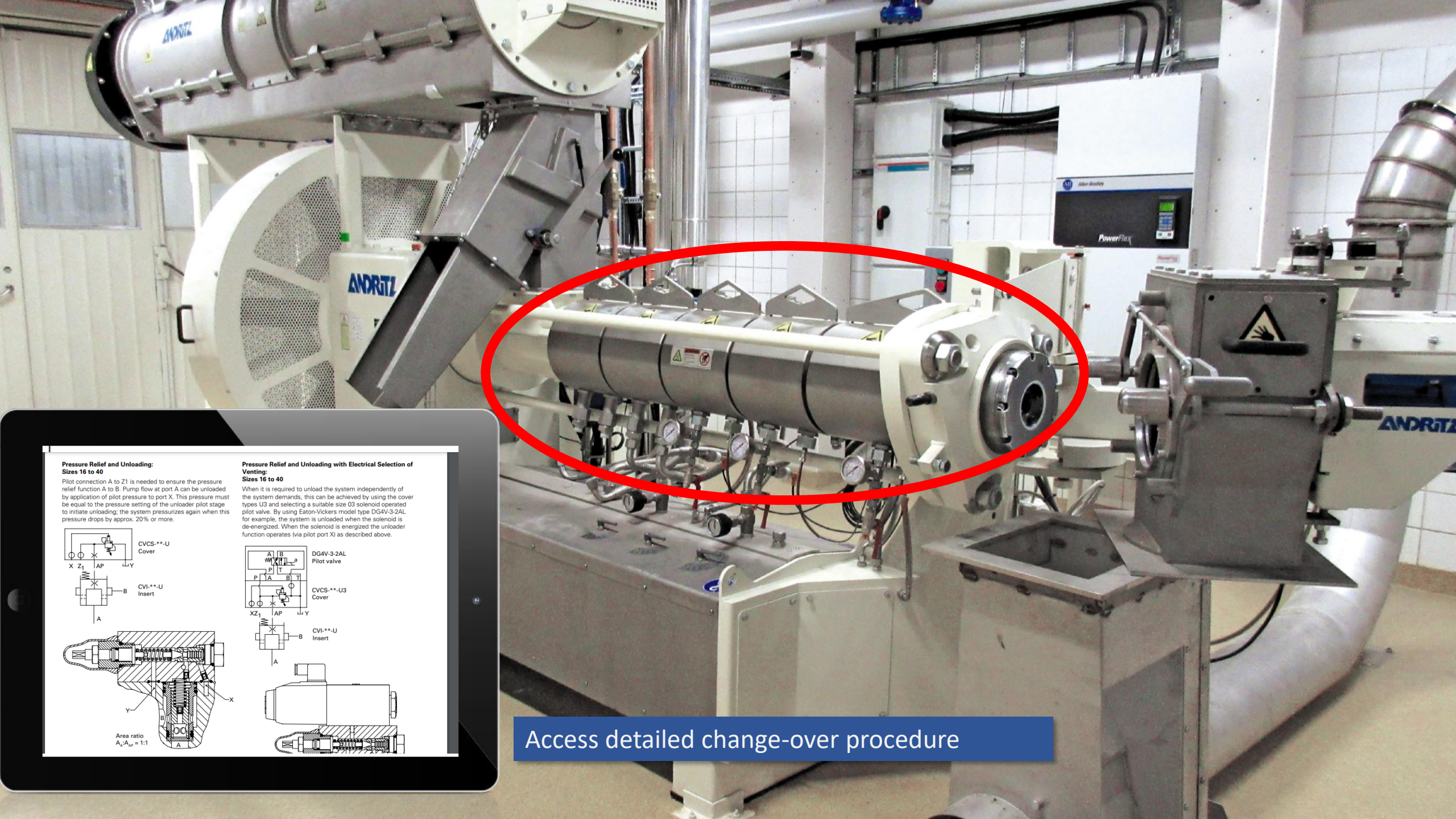
Safety Related Notes



Additional Resources



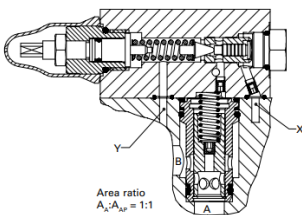
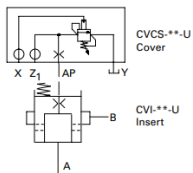
Component information readily available



Access detailed change-over procedure

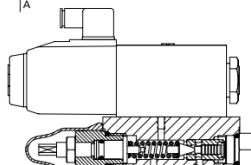
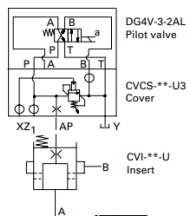
**Pressure Relief and Unloading:
Sizes 16 to 40**

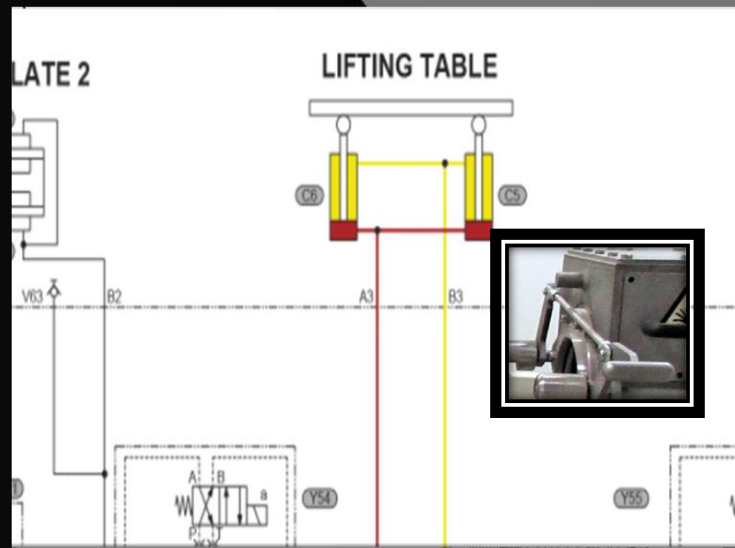
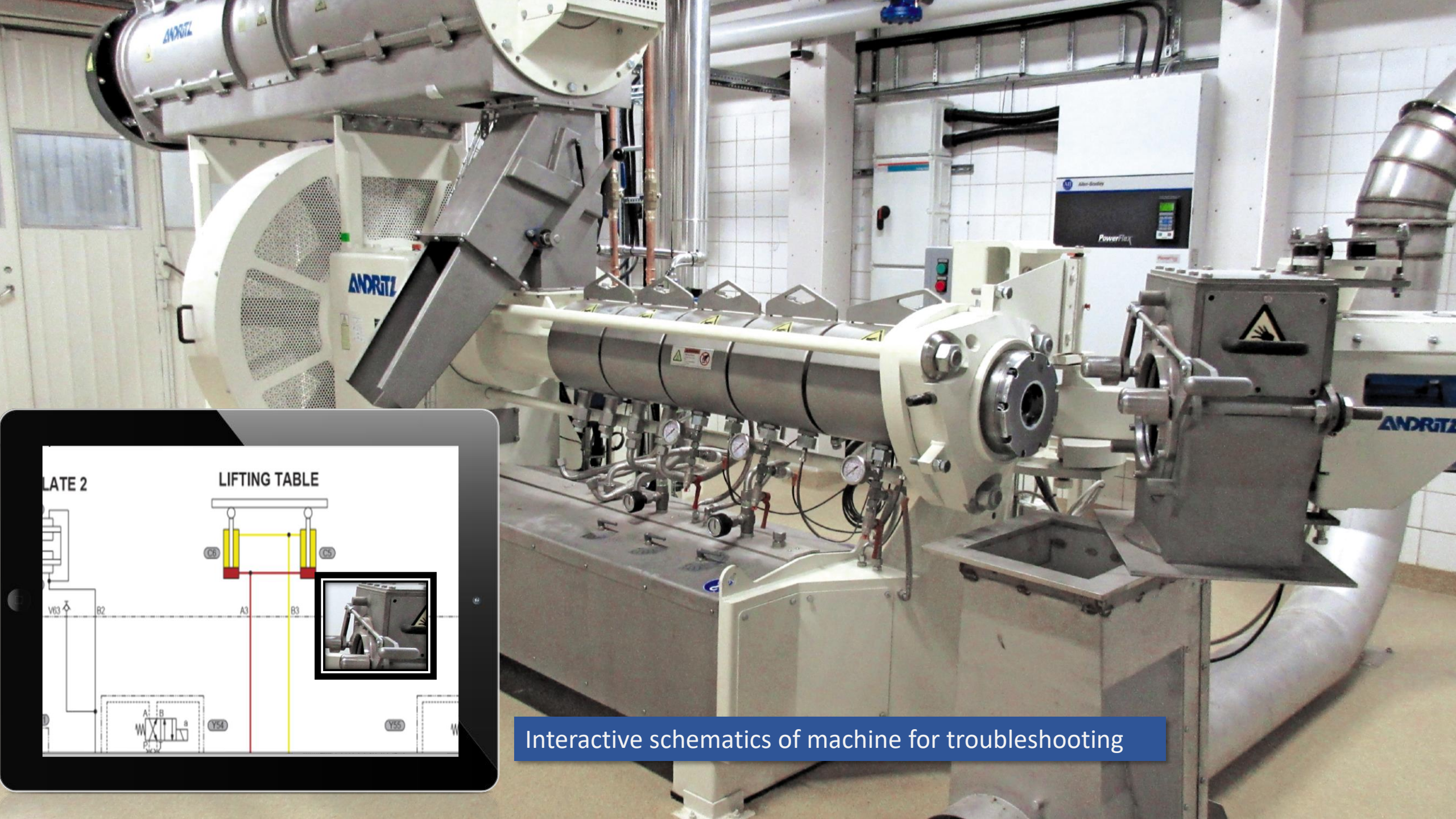
Pilot connection A to Z1 is needed to ensure the pressure relief function A to B. Pump flow at port A can be unloaded by application of pilot pressure to port X. This pressure must be equal to the pressure setting of the unloader pilot stage to initiate unloading; the system pressurizes again when this pressure drops by approx. 20% or more.



**Pressure Relief and Unloading with Electrical Selection of
Venting:
Sizes 16 to 40**

When it is required to unload the system independently of the system demands, this can be achieved by using the cover types U3 and selecting a suitable size 03 solenoid operated pilot valve. By using Eaton-Vickers model type DG4V-3-2AL for example, the system is unloaded when the solenoid is de-energized. When the solenoid is energized the unloader function operates (via pilot port X) as described above.





Interactive schematics of machine for troubleshooting



MM01 - Install a Belt-Driven Pulley	
Training	
Prerequisites	
Associate and evaluator have signed.	
Safety glasses must be worn	
Remove the old pulley to reduce rpm from 60 rpm motor to 30 rpm and install the new pulley from warehouse or vendor.	
Inspect the pulley and shaft for nicks, rust, dirt, or grease and removes.	

On-the-job training checklists with mobile forms platform



Skills verification using mobile forms platform

 MM01 - Install a Belt-Driven Pulley

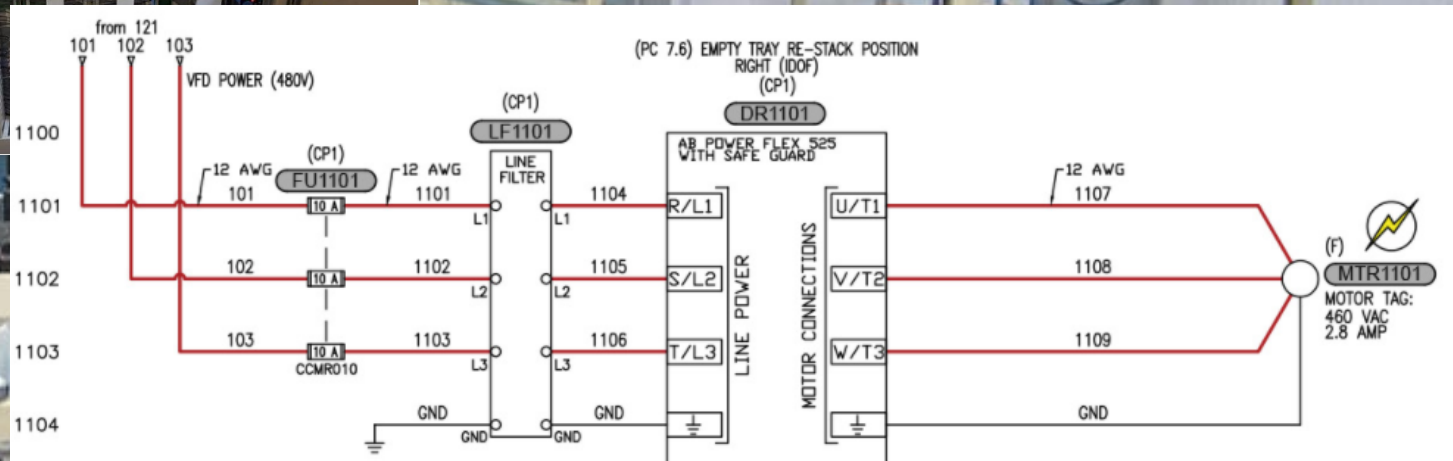
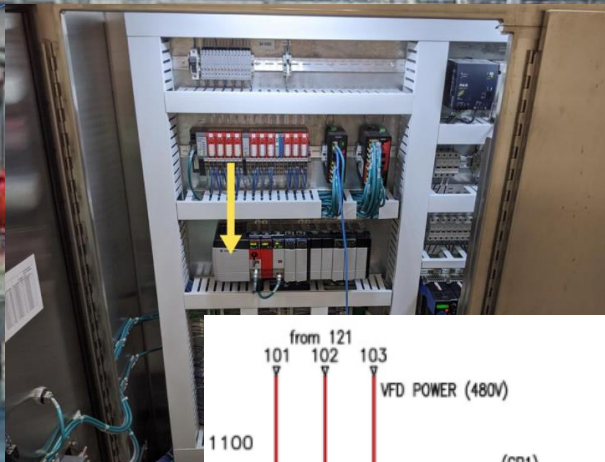
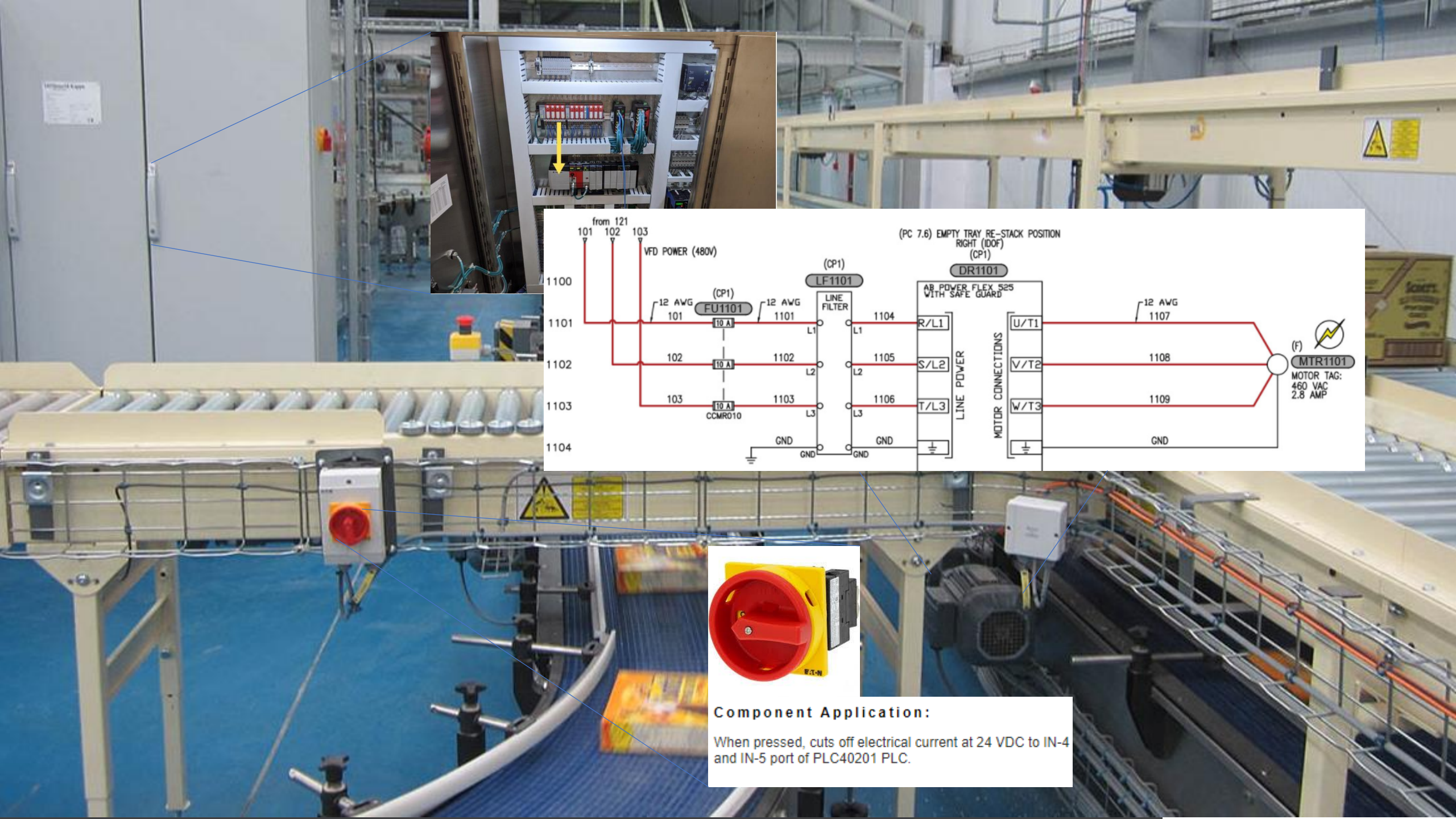
Training

Prerequisites
Associate and evaluator have signed.
Yes

Safety
Proper PPE must be worn
No

Selects proper pulley to reduce rpm from 60 rpm motor to 30 rpm and install
Selects pulley from warehouse or vendor.
Yes

Inspects pulley and shaft for nicks, rust, dirt, or grease and removes.
Yes



Component Application:

When pressed, cuts off electrical current at 24 VDC to IN-4 and IN-5 port of PLC40201 PLC.

- Availability of “support documentation” is key
- Multiple ways to get the same information – for different learners
- Software supports the OJT approach; Introduce – Practice – Verify
- Reduce the “tribal knowledge” factor
- 70% of learning happens in OJT; 70% of training resources?





Learning Skills in a Simulated Environment



Questions?

- If you'd like to learn more about how to drive learning and training outside of the classroom, TPC Training can help!

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