



AUTOMATED OPENING VENT (AOV)

AOV FOR SMOKE AND HEAT EXTRACTION TO EN12101-2-2003

1. OVERVIEW- PRODUCT DETAILS

The effects of smoke being generated by fire can reduce the visibility for the occupants and can increase the time to escape the fire, creating greater exposure to smoke inhalation that can consequently cause loss of consciousness.

Smoke ventilation allows the creation of a smoke free layer above the floor by removing smoke. This improves the conditions for safe escape and permits the fire to be fought in its early stages.

Tested to EN12101-2-2003, the TOTAL70 AOV using the SE CONTROLS actuator meets the stringent requirements of opening and closing the window, which in addition has been rigorously cycle tested for reliability and operation at 300° in accordance to EN12101-2-2003.

Product use

TOTAL70 AOV, is based upon, and has all of the design and security benefits of, the REHAU TOTAL70 system. The system provides side hung open out windows.

Product benefits

TOTAL70 AOV provides you with all the safety and security of traditional fire rated products, but with PVC-U's added inherent benefits of:

- Improved thermal insulation
- Sound proofing
- Characteristic low maintenance
- Security options.

Responsibility and liability

All components and details in the manual must be used and followed. Any deviation will render the product unfit for purpose. It is therefore the responsibility of the fabricator/installer to ensure by the corresponding manufacturing process that all technical and legal requirements are met and that the TOTAL70 AOV products meet the relevant Building Regulations and CE Compliance. The specialist fabricator must hold certification for their factory production control process with an independent notified body e.g. IFC to Attestation Level 1 complying with ISO 9001.

Testing

The TOTAL70 AOV has been tested to the following:

Standard	Size * (width x height)	Test	Results	Test Facility	No.	Date
Smoke and heat control systems - Part2: Specification for natural smoke and heat exhaust ventilators	Casement 1200mm x 1500mm	EN 12101-2:2003 Annex G Heat exposure test	Pass	EXOVA	BMT/FE/ F16002	16/02/16
As above	Casement 1200mm x 1500mm	EN 12101-2:2003 Annex F Wind load test	Pass	SE Controls underwritten by IFC	NPD18- 0106	15/02/16
As above	Casement 1200mm x 1500mm	EN 12101-2:2003 Annex C Reliability test	Pass	SE Controls underwritten by IFC	NPD18- 0108	19/12/16

* Side hung casement/Bottom hung opening out casement

Free air calculations

These should be completed by the specialist Actuator supplier to ensure that the airflow requirements meet current building regulations.

Product details and concept

- 70mm system depth
- 105.5mm T Sash
- 72mm Outer Frame
- Open out windows
- 28mm glazing unit

The TOTAL70 AOV is based on REHAU TOTAL70 system. The system uses the SE actuator utilizing both the reinforced 105.5mm T Sash and 72mm Outer Frame with the sealed unit utilizing glazing clips.

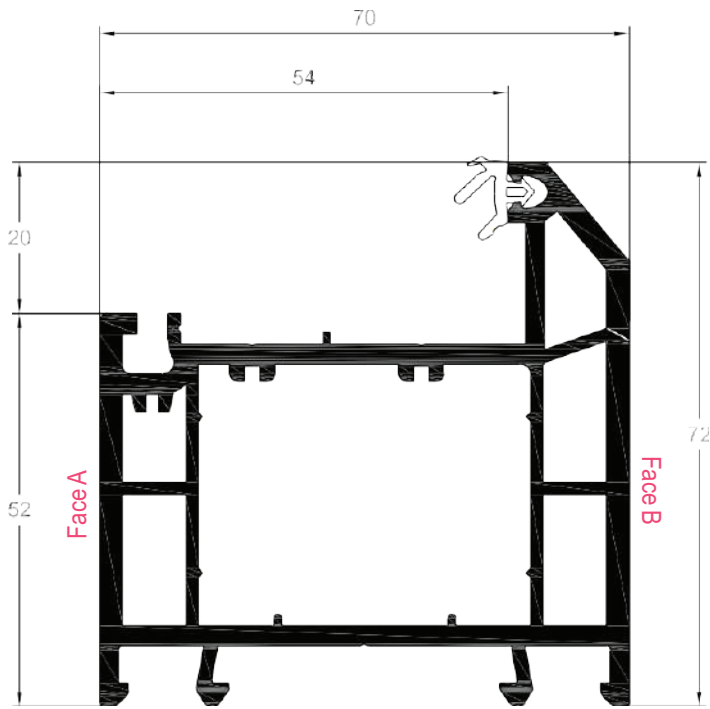
Glazing

Glass units must be double glazed using 6 x 6mm toughened glass made into a 28mm unit with an aluminium spacer.

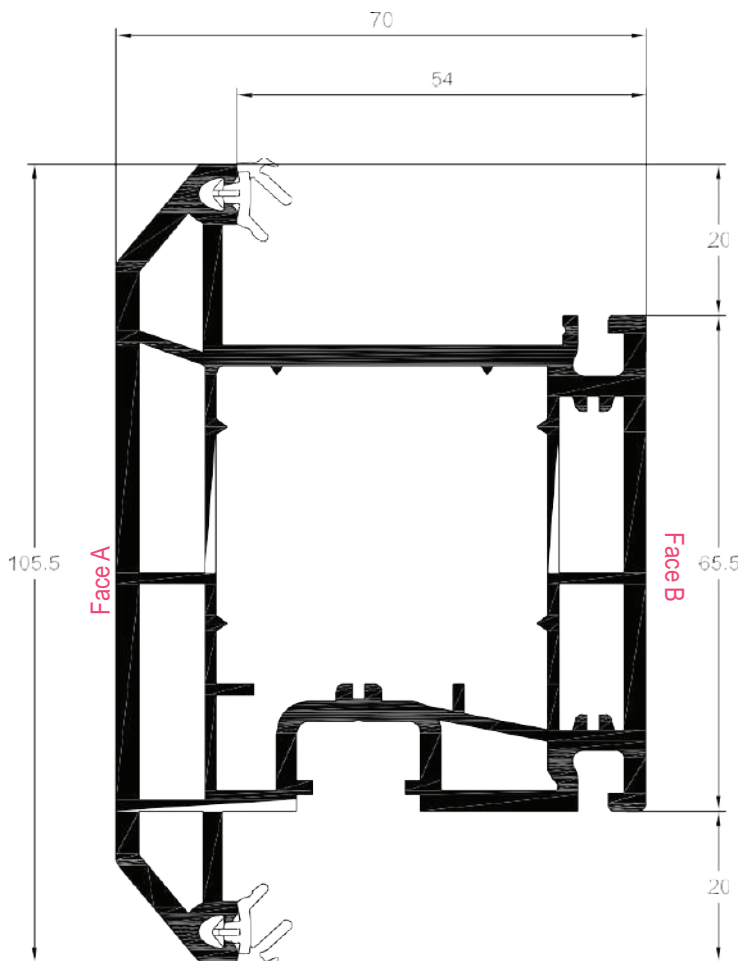
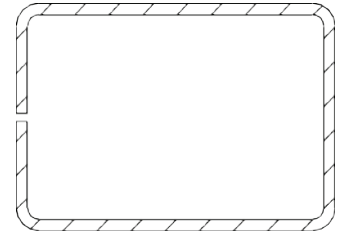
Reinforcement

All profiles, irrespective of size, must be reinforced. Manufacturing details must be strictly followed.

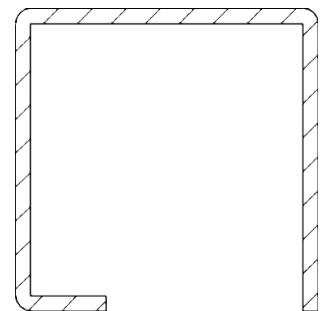
2. COMPONENT DETAILS - MAIN PROFILES



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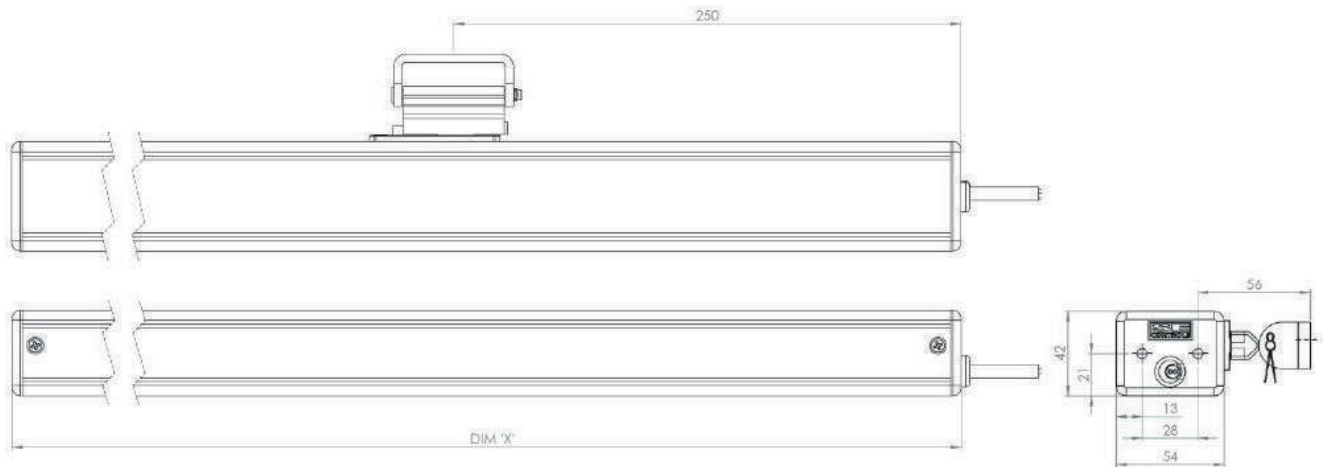
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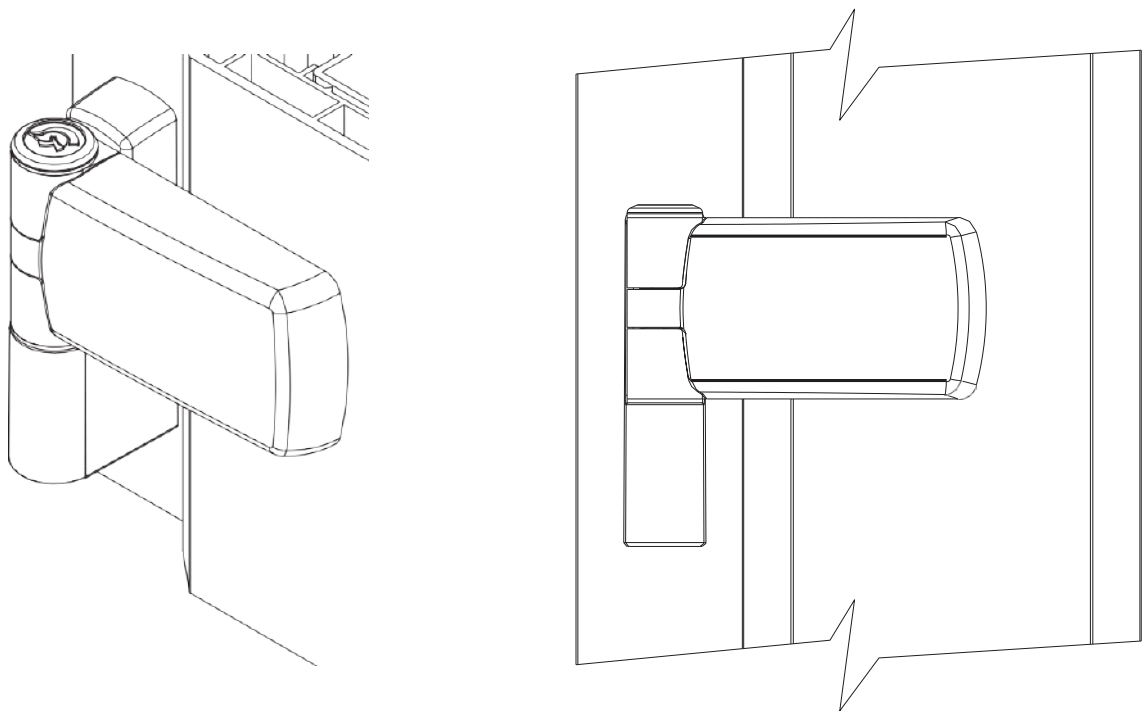
2. COMPONENT DETAILS - HARDWARE

The AOV uses the SE actuator and Trojan hinge which are shown below:

SE Controls Twin SECO Ni 24 40 Actuator

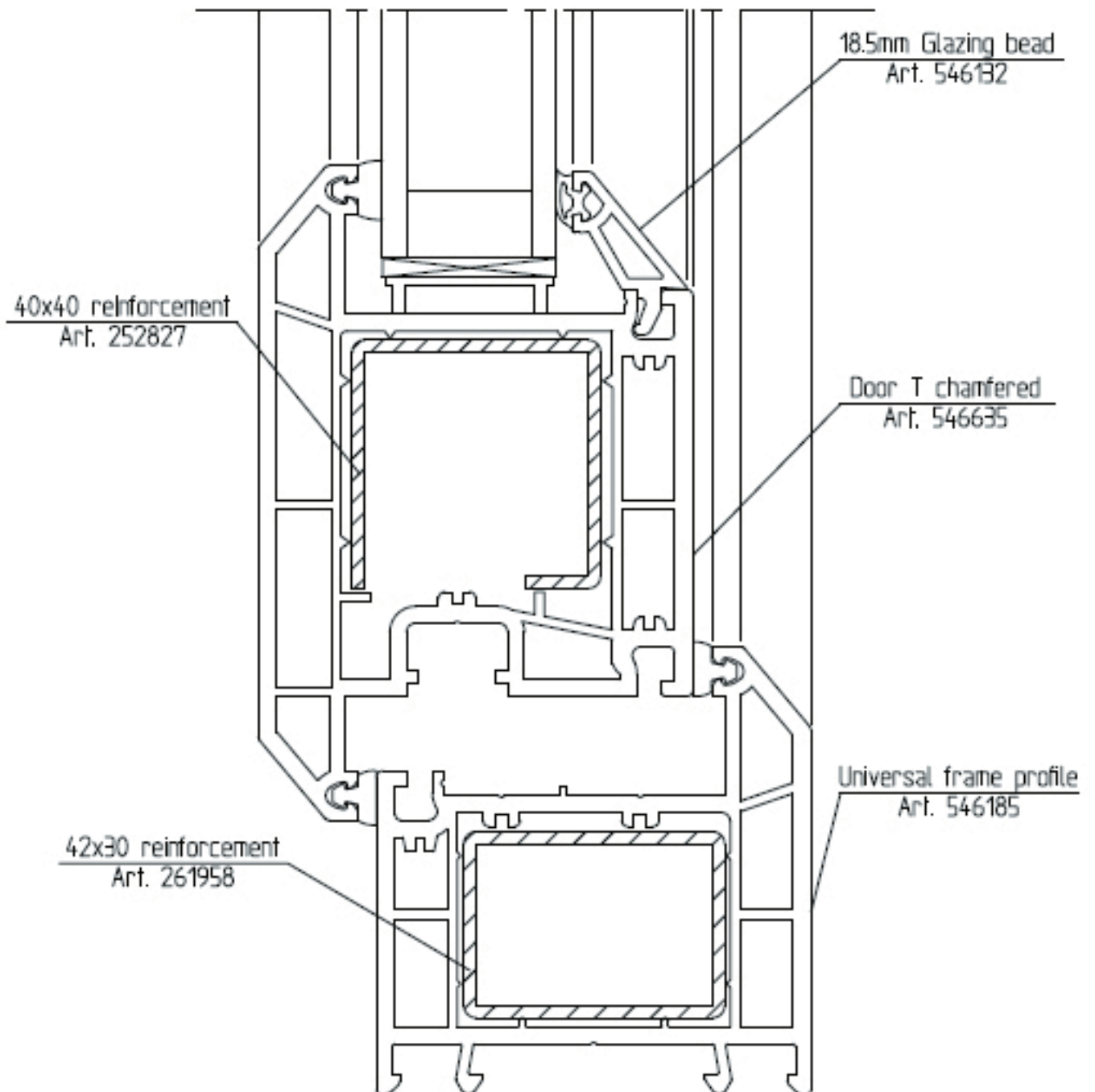
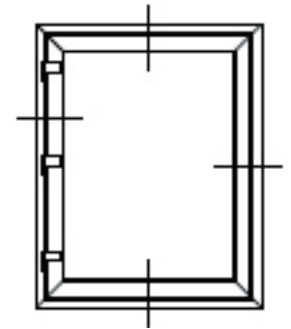


TROJAN PATRIOT Plus 19mm Hinge



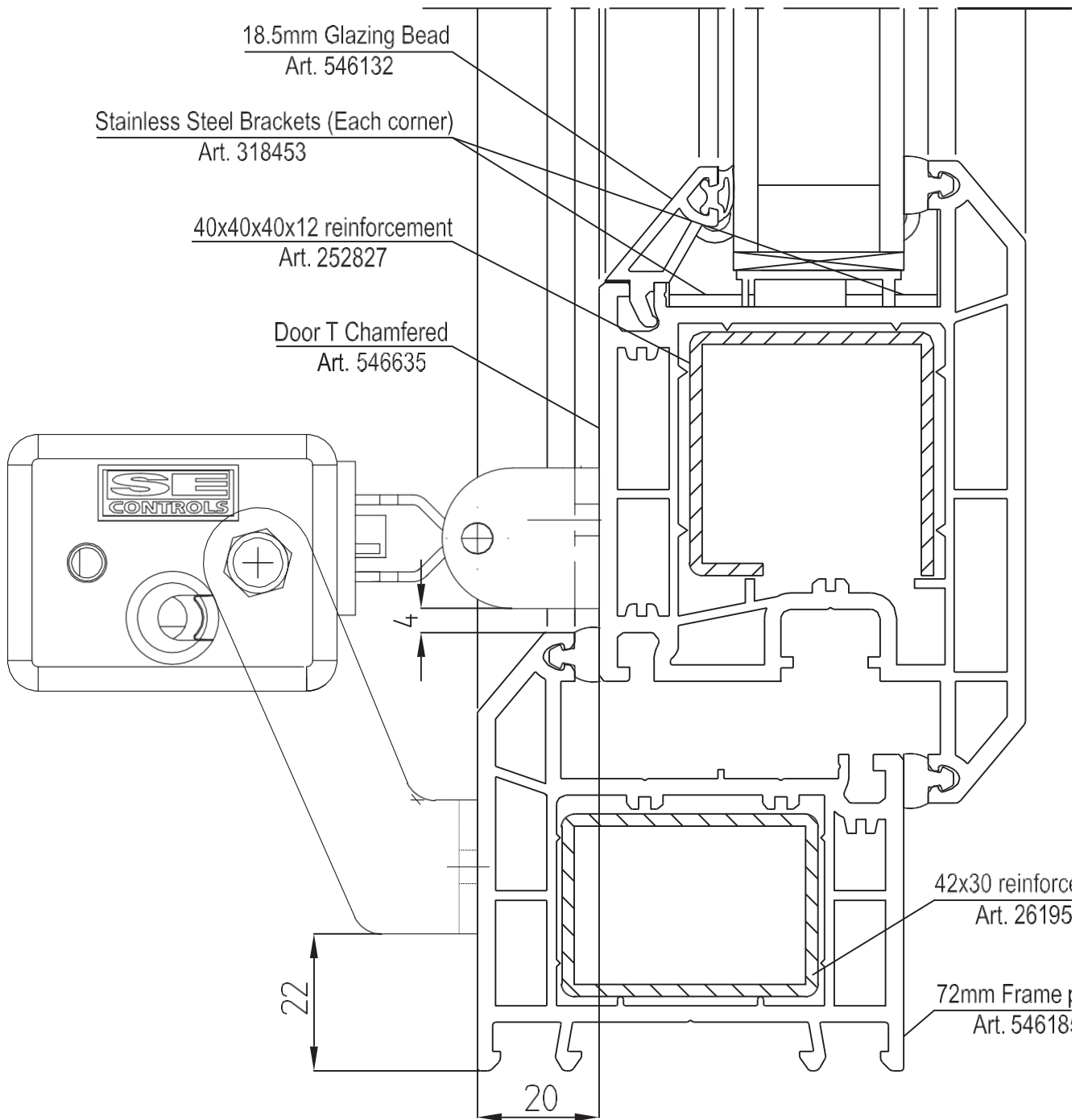
3. PRODUCTION DRAWINGS

OUTWARD OPENING, SIDE HUNG
SECTION DETAILS



4. PRODUCTION DRAWINGS

SE CONTROLS ACTUATOR



5. PRODUCTION DRAWINGS

TROJAN HINGE

