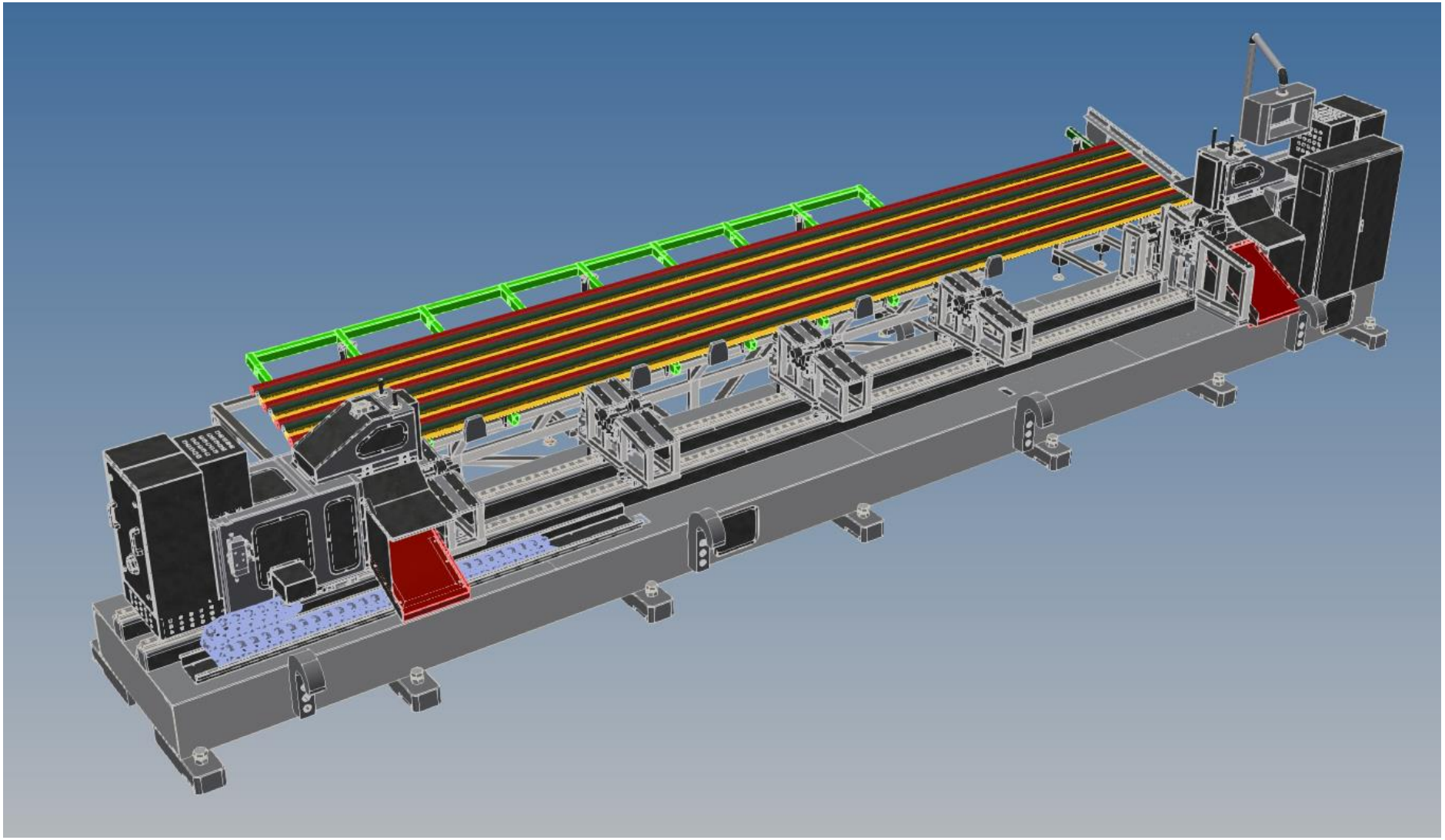
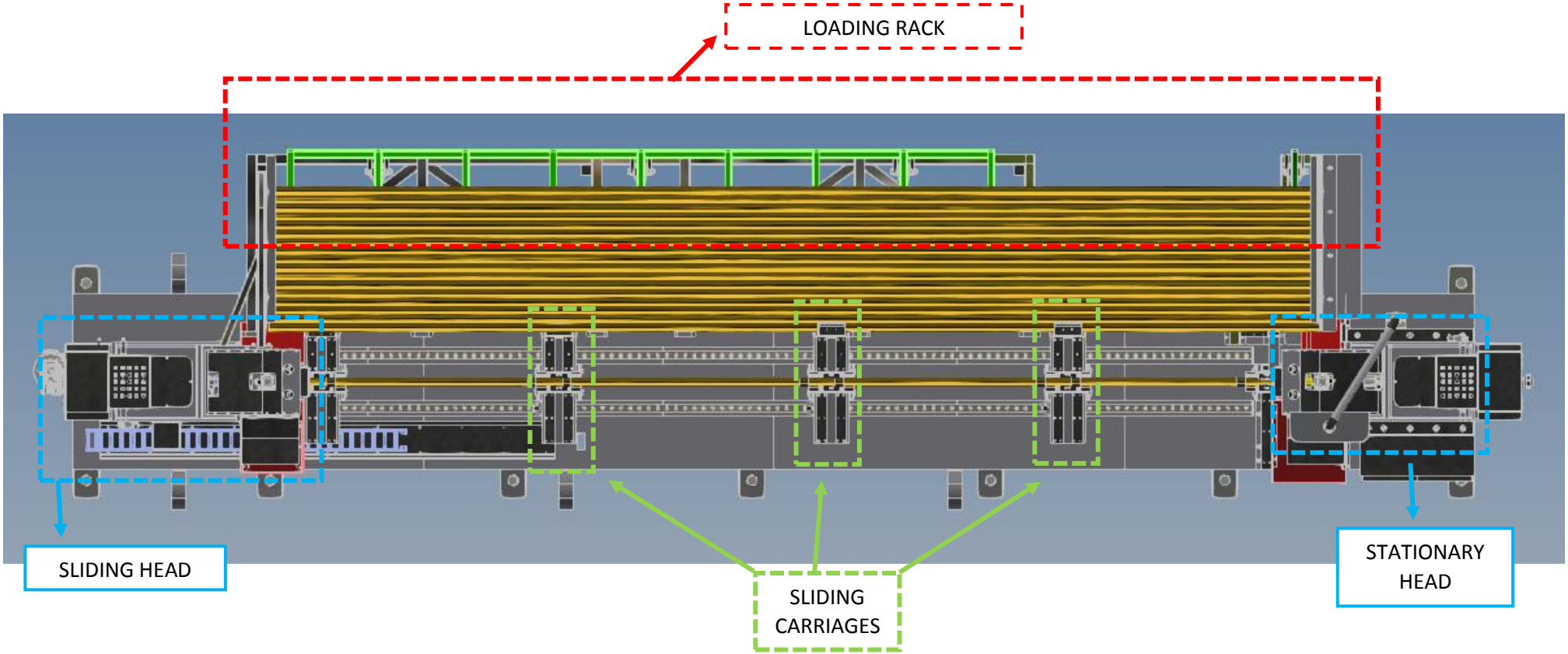
1. GPK80 GENERAL OVERVIEW



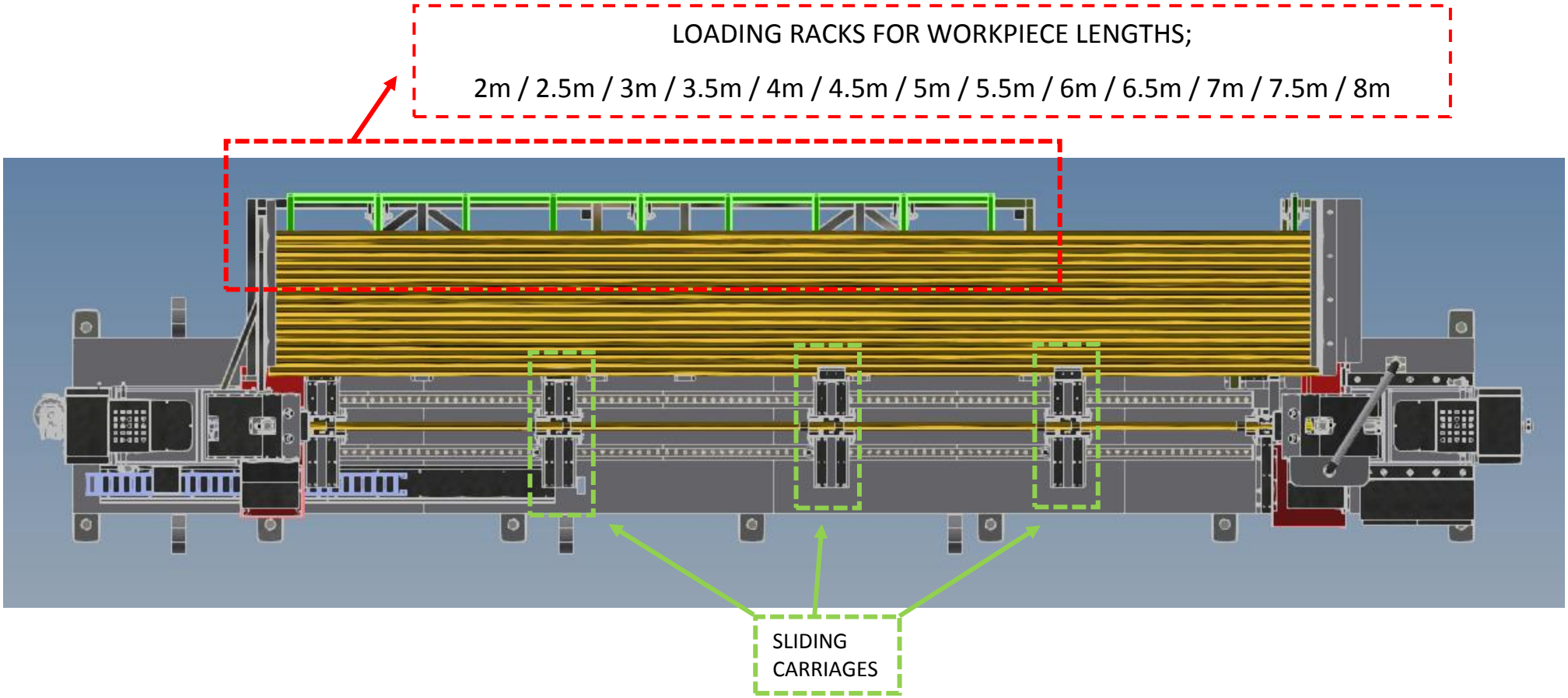
2. GPK80 TECHNICAL FEATURES

FEATURES	GPK80
Workpiece diameter	Min = Ø20 mm Max. = Ø80 mm
Workpiece length	Min. = 2000 mm (+/- 50mm) Max.= 8000 mm (+/- 50mm)
Operation pressure	6-8 Bar
Main Drive	3 kW x 2
Spindle Speed	660 rpm
Machine Dimensions (WxLxH)	2000 x 11000 x 2000 mm
Total Power	~ 10 Kw
Machine Weight	~ 10000 kg.
Chamfering Depth (Piston Stroke)	max = 15 mm
Chamfering Angle	45^0

3. GPK80 MACHINE SECTIONS

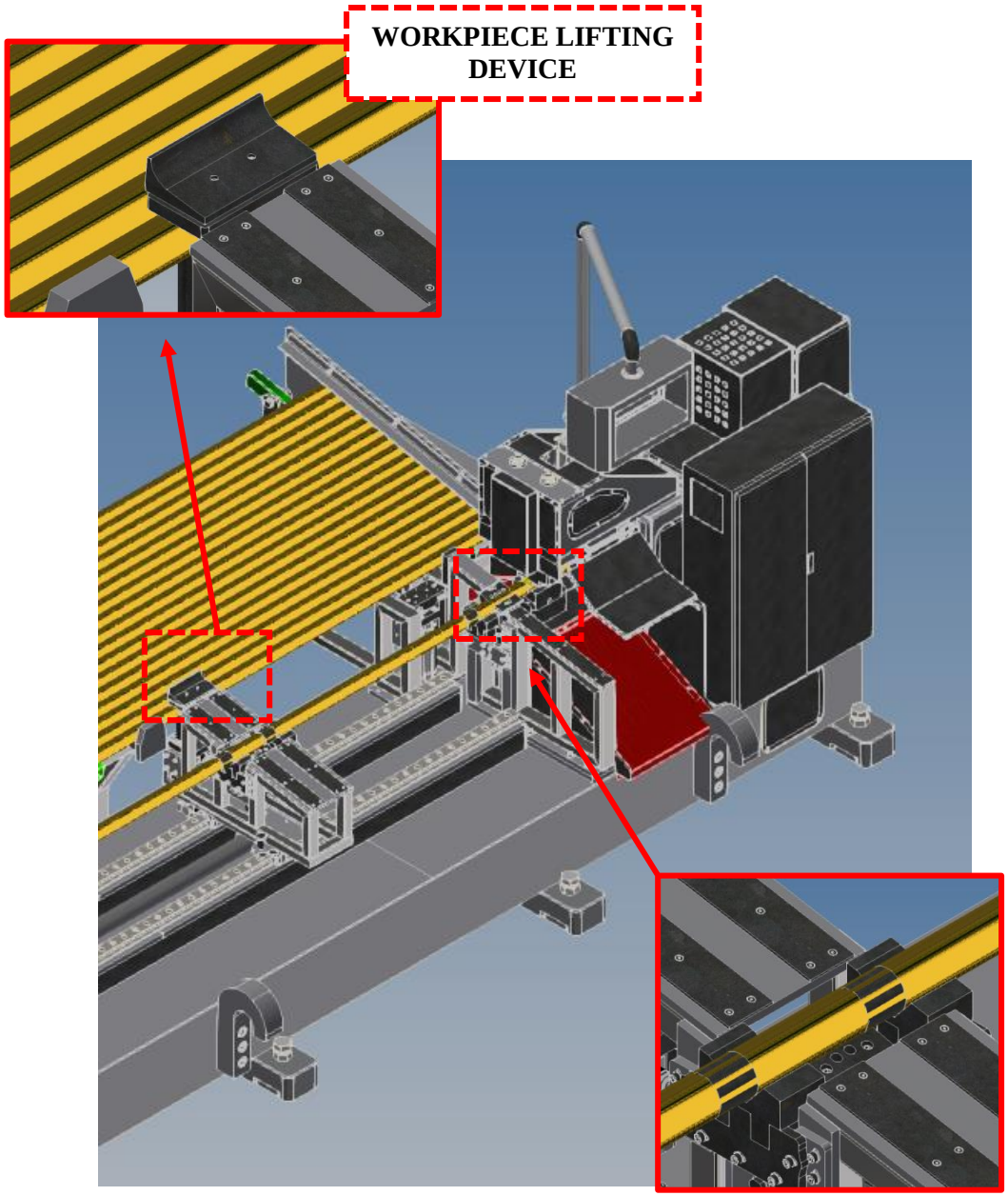


4. GPK80 WORKPIECE LENGTH RANGE



- Stationary racks are positioned for part lengths in between 2 – 8 meter in loading area.
- Sliding head is positioned at requested workpiece length by motor with reduction gears.
- Sliding Carriages are positioned according to requested workpiece length and then fixed.
- Length tolerance is +/- 50mm.

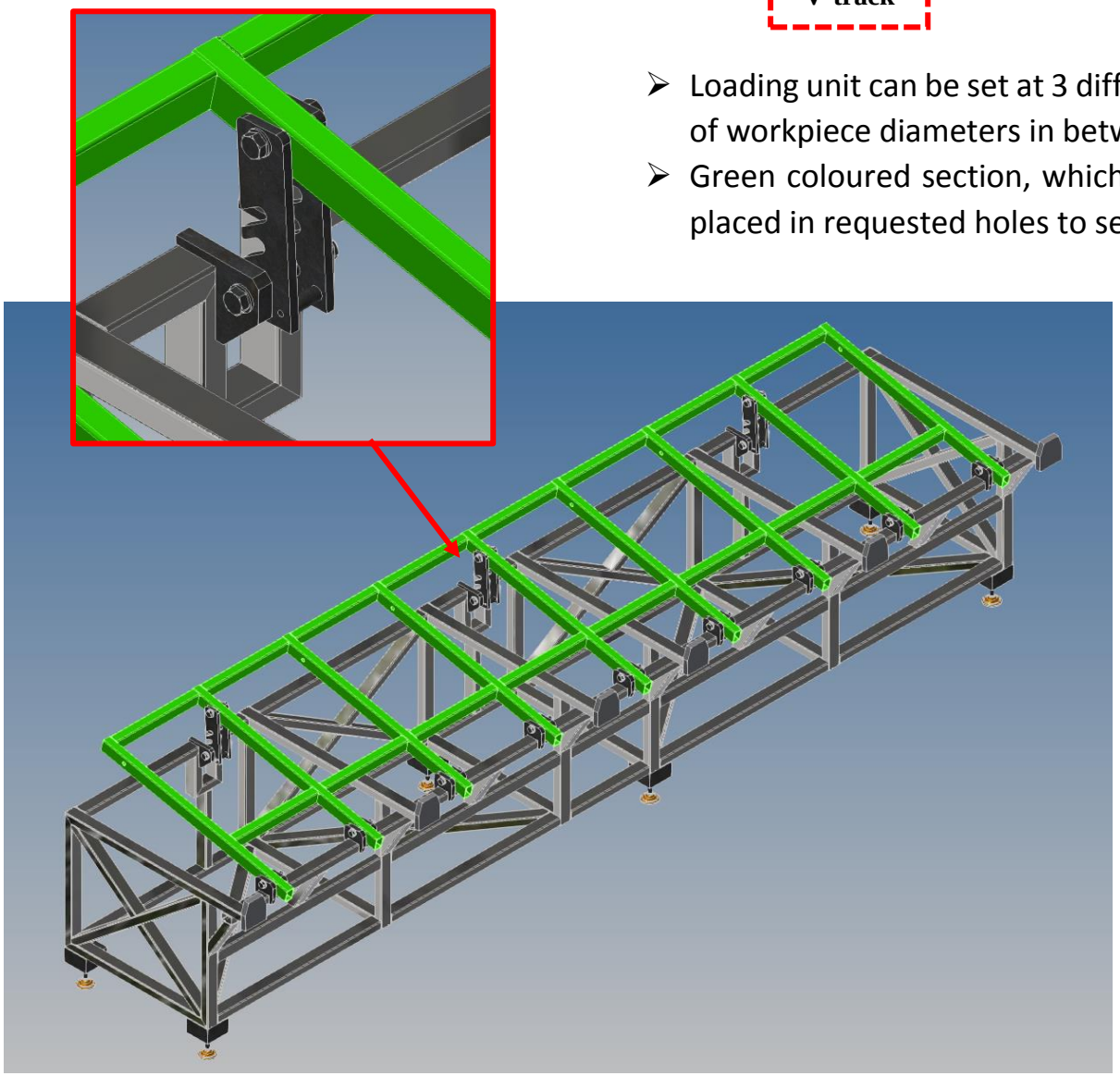
5. GPK80 WORKPIECE DIAMETER RANGE



- Workpieces, which have diameter range in between Ø20mm and Ø80mm, can be chamfered by replacing V-tracks and lifting devices that are shown images on left.
- Lifting device and v-tracks are fixed by pins.
- V-tracks and workpiece ejection devices should be customized for every diameter and replaced accordingly.

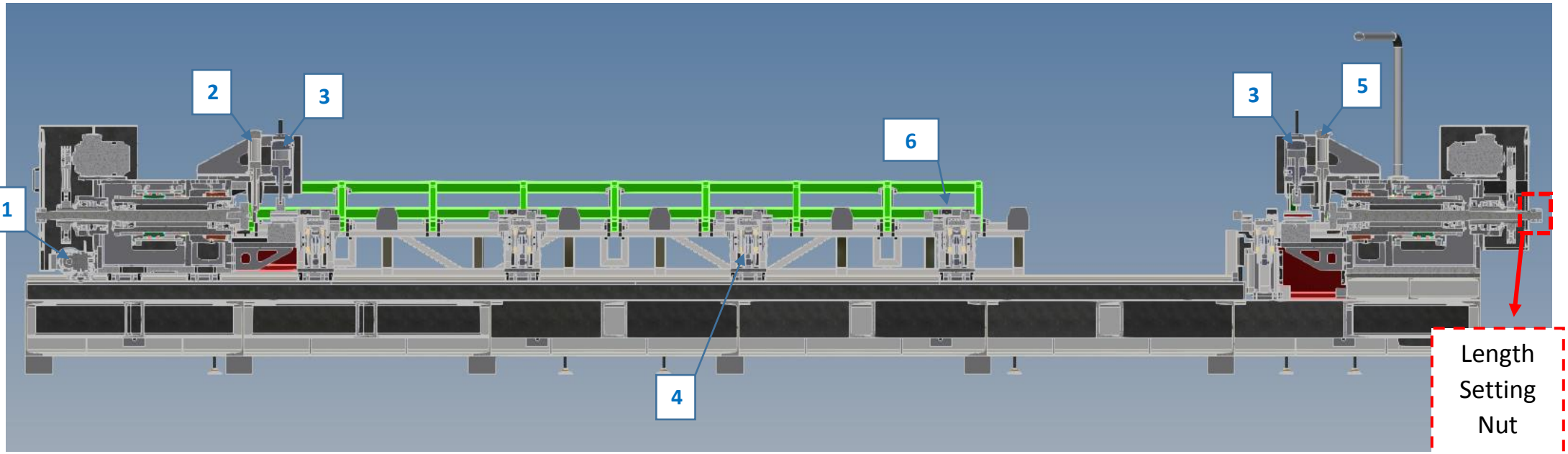
6. GPK80 SPEED AT VARIOUS DIAMETERS

V-track



- Loading unit can be set at 3 different inclination angle (5-8-12^0) to set tumbling speed of workpiece diameters in between Ø20 mm and Ø80mm.
- Green coloured section, which is shown image below, is moveable. Set part can be placed in requested holes to set the inclination.

7. GPK60 PROCESS FLOW

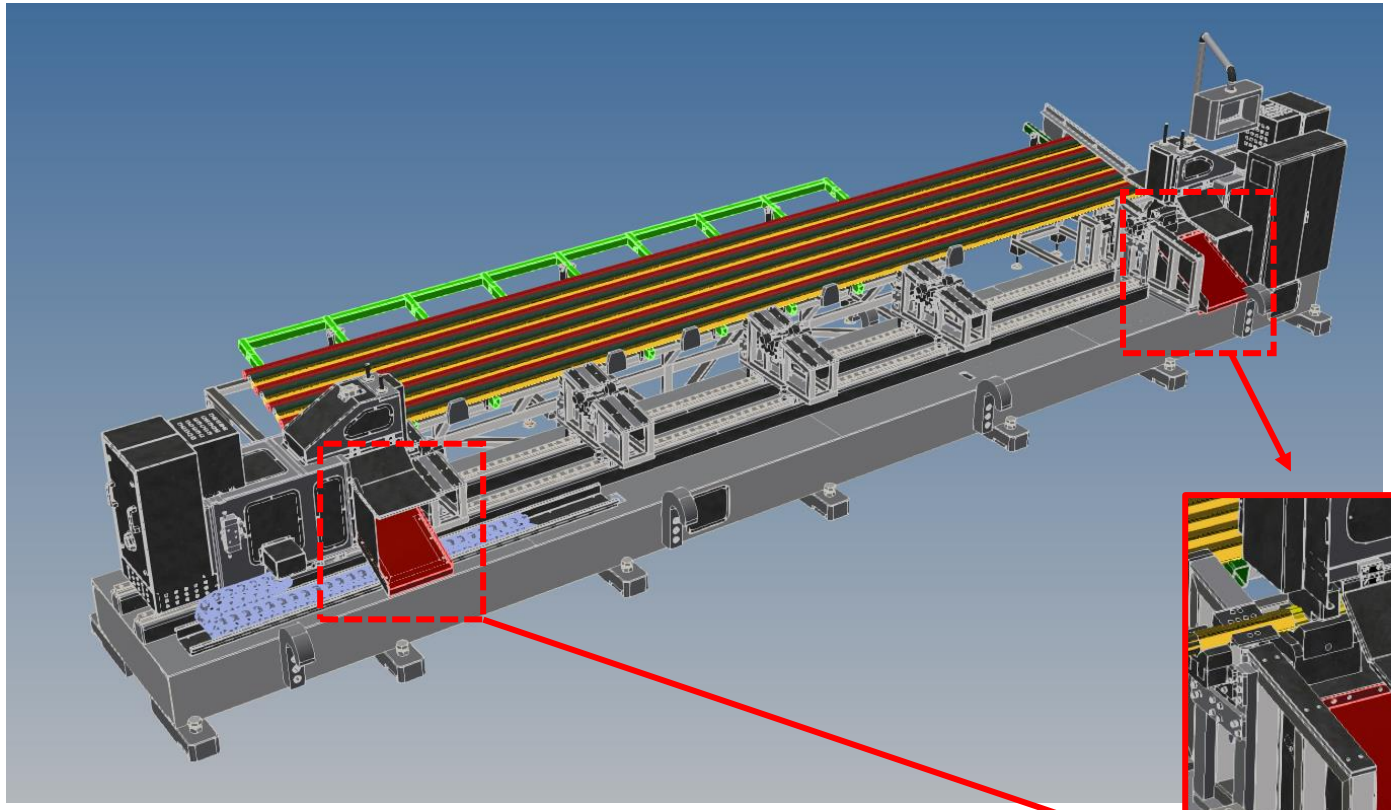


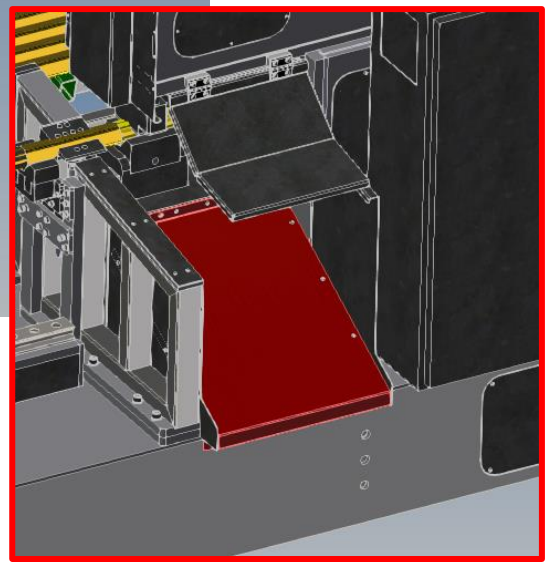
1) In the loading area, parts with +/- 50mm length tolerance, between 2-8 meters are loaded manually based on the fixed side.
2) Blank parts that are in loading area are moved to V-tracks by lifting pistons (6). Sliding distance is 200 mm. In meanwhile, support pistons are in lower position (2)
3) After falling blank part in V-track, sliding head slides on toothed rack to stationary head and moves blank part to stationary head. (1)
4) When blank part is detected by sensor, where is placed on support piston of stationary head, movement of sliding head is stopped. (5)
5) Pistons, which are acting as clamps on both side, fix the blank part. (3)
6) Supports on both side, are taken in upper position. (2/5)
7) Chamfering tools moves forward by pneumatic piston to chamfer blank part and moves backward. Then chamfering tools moves backward in same way. (Chamfering depth can be set by nut on spindle. Max. Chamfering depth is 15mm)
8) Chamfered part in v-tracks, are fallen from v-track by lifting pistons (4) and directed to finished part area.

Note: Chamfering depth can be set by length adjustment nut. Process time is between 15-25sec depends on blank part's diameter.

This process is repeatable for other parts.

8. GPK80 SWARF UNIT





Swarf collection tanks - 2 at front / 2 at rear in total 4 units.

- During the chamfering process, process areas are is closed as much as possible to prevent spread of swarf. Addition to this part loading and unloading areas will be covered by curtains.

- There are 2 stationary and 2 moveable, in total 4 swarf collection areas are available. Swarf will be emptied by sliding on inclined surfaces. (Swarf collection carrier or conveyor belt etc. are not included and should be produced additionally.)