



Putting Ideas into Practice





Emballasjeskolen klasse 46

Pakketeknikk 15. november 2016

Tor Gustavsen (54 år)

Emballeringsøkonom DNE
(Klasse 38)

Salgssjef End of Line Packaging
(D-pakk / T-pakk)

Ansvarlig for Norden.

Gift

2 voksne jenter

Tyristrand



Om Tronrud Engineering

- Privat selskap eid av Ola Tronrud
- Etablert i 1977
- Over 36 år med erfaring med utvikling og produksjon av spesial maskiner og utstyr
- 140 ansatte på TE Eggemoen
 - Tronrud Engineering Pte Ltd, basert i Singapore med 4 ansatte
 - Moss Jern og Stanse basert i Moss (MJS) med 55 ansatte
- God økonomi
- Egen industri park på Eggemoen, Ringerike, område dekker 2.5 km² med egen flystripe på 2200 m



- Nor Reg Systems AS var eid av KK Sunde Holding AS
- Etablert i 1969 (Brødrene Sverre og Trygve Larsen)
- Konkurs august 2015 (2005)
- Tronrud Engineering AS kjøper boet, ca. 50% av de ansatte blir tilbudt jobb.
- Ferdigstillelse av pågående prosjekter
- Inngå nye kontrakter med ferdigforhandlede maskin prosjekter til Bama Industri AS - Poco Loco – PepsiCo Australia – Sanitarium Australia – PepsiCo Belgia
- Etablert kontakt med eksisterende kunder vedrørende service og reservedeler.
- Utvikling av nye maskin konsept basert på kunnskap og erfaringer fra Nor Reg



- Your partner in end-of-line packaging -



Compact



Flexible



Fast

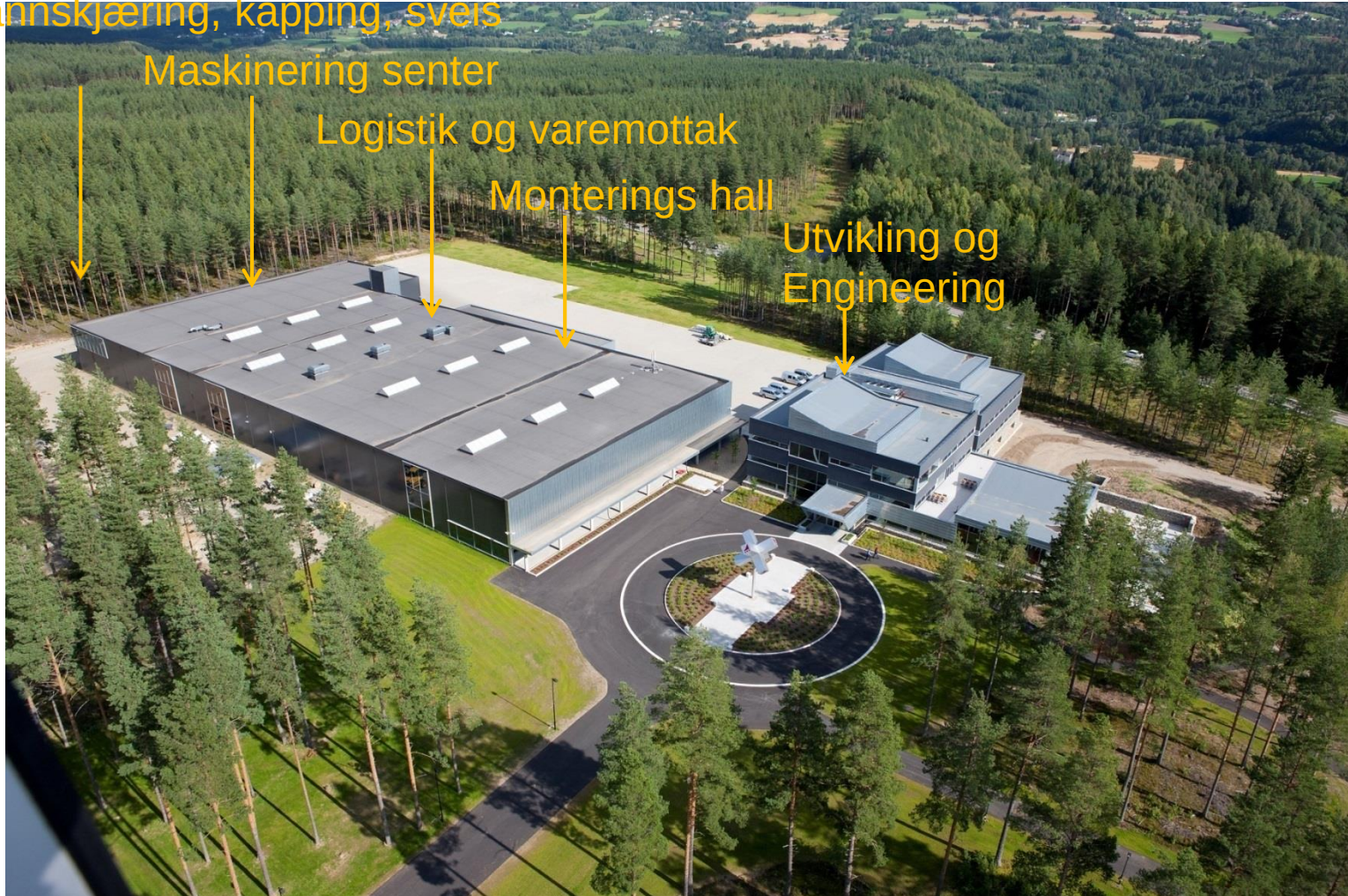
Vannskjæring, kapping, sveis

Maskinering senter

Logistik og varemottak

Monterings hall

Utvikling og
Engineering



Ekspansjon Eggemoen



Nye produksjonslokaler på Eggemoen, ferdigstilles Q3 2016 / Q1-2017– Totalt 5200 m2

Formål

Se fordeler og forskjeller mellom de forskjellige pakkemetoder og eskeløsninger og maskiner.

Bruk av div. uttrykk / språk som:
CE/CP – Kassereiser/Kassepakker
TE/TP – Traureiser/Traupakker
TP – Traupakker Bunn/Lokk
TCP- Trau/Kasse pakker
WP/WAP – Wrap Around pakker

Palletering

Optimalisering

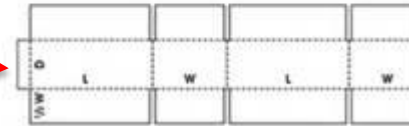


Bølgepapp

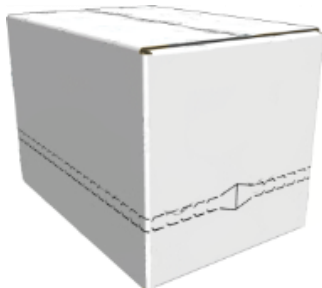
RSC Regular Slottet Carton

Kalles også American Box / Sjaktel kasse /
Slits Läda / Flytte eske

Konvertert emballasje, limes, tapes eller stiftes
i den ene siden.



- ✓ Shelf ready / Facing
- ✓ Limes
- ✓ Tapes
- ✓ Stiftes
- ✓ Fan fold
- ✓ Trykk



Kassereiser / Case Erector

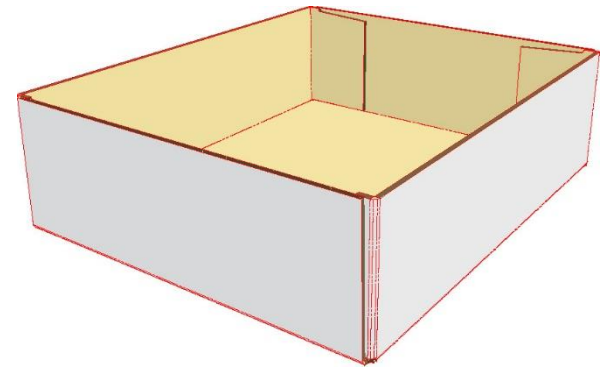
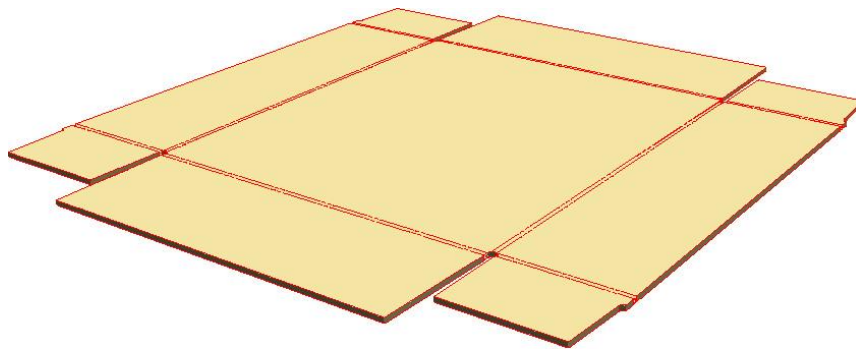


Maskin eksempel CE/CP



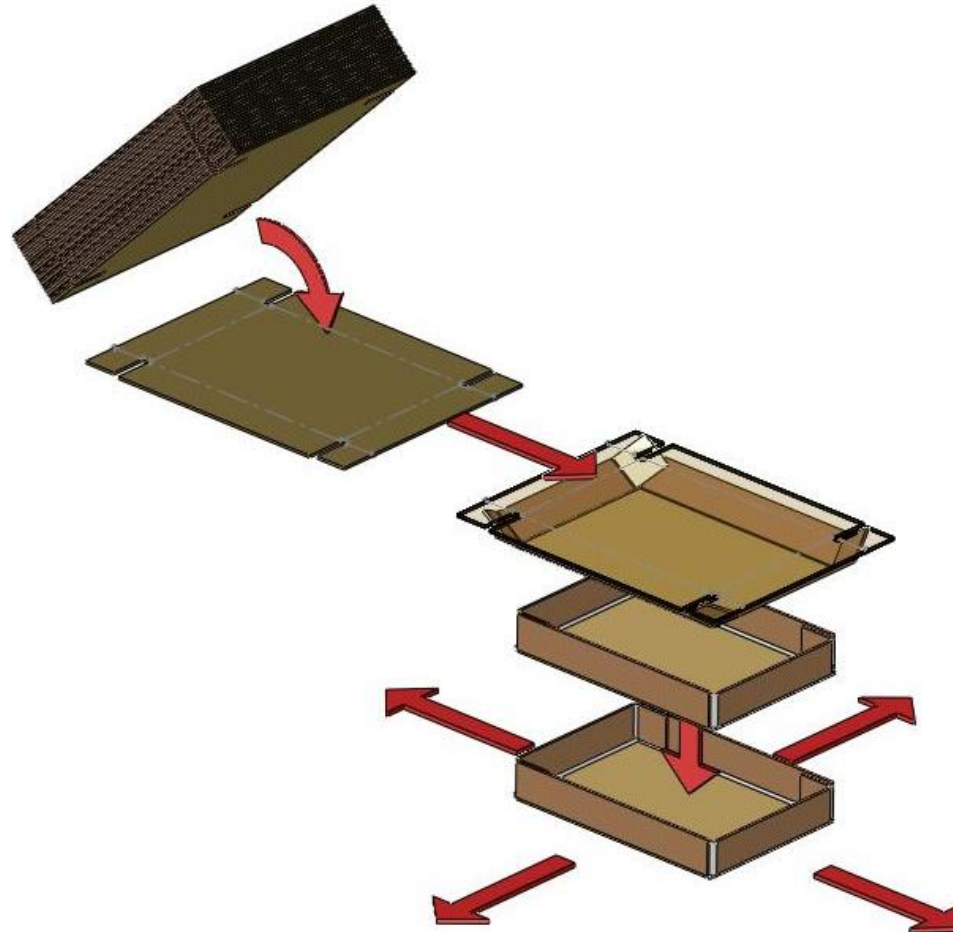
Trau

Er en meget utbredt emballasje form som brukes alene eller med forskjellige lokk løsninger.

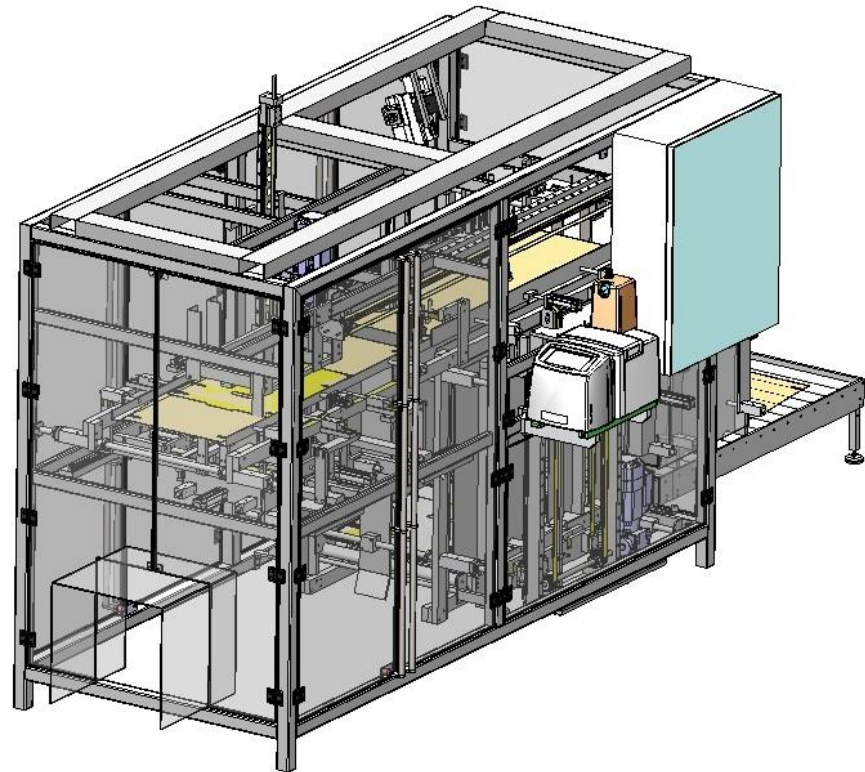


- ✓ Shelf ready / Facing
- ✓ Limes
- ✓ Trykk

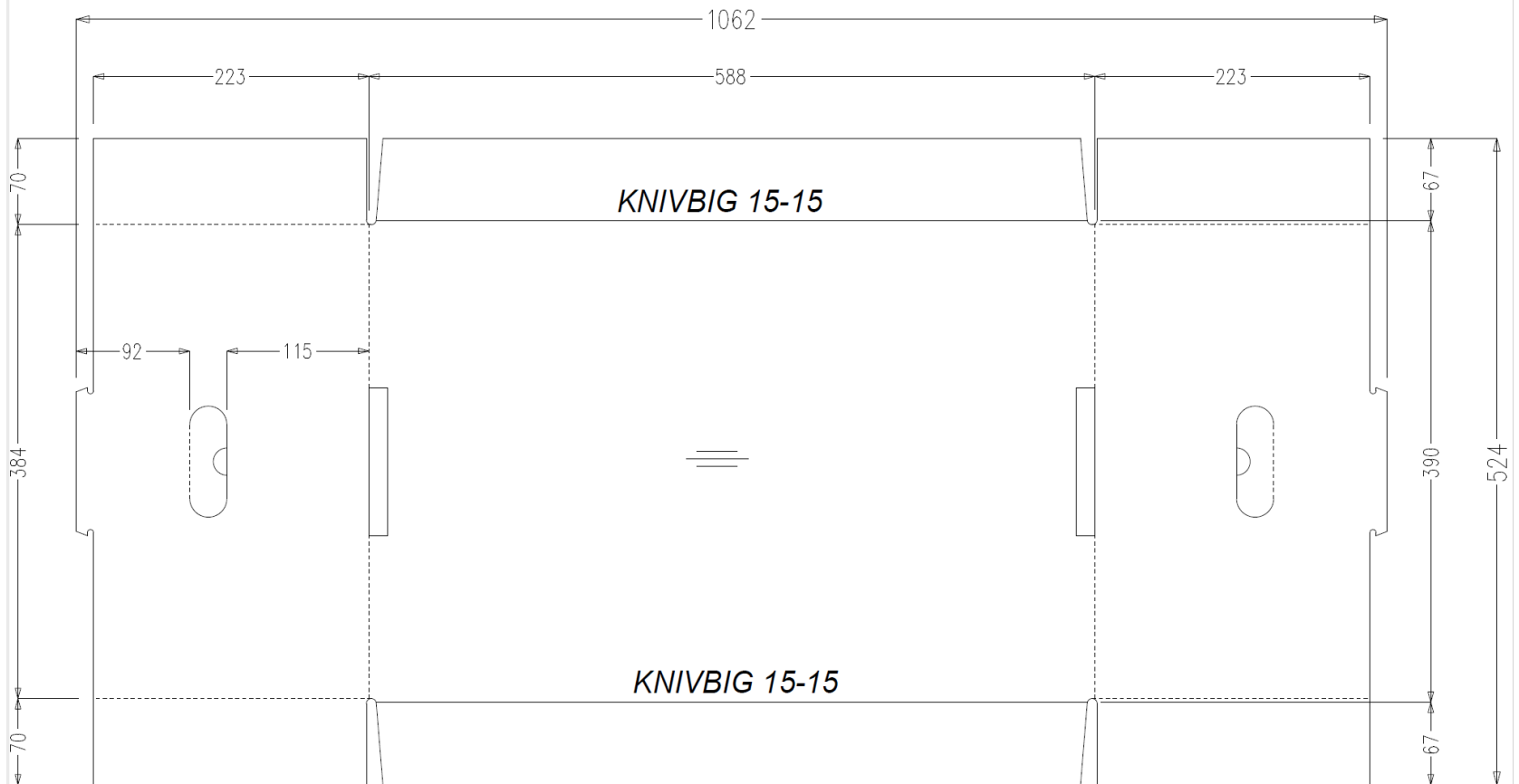
TE Traureiser



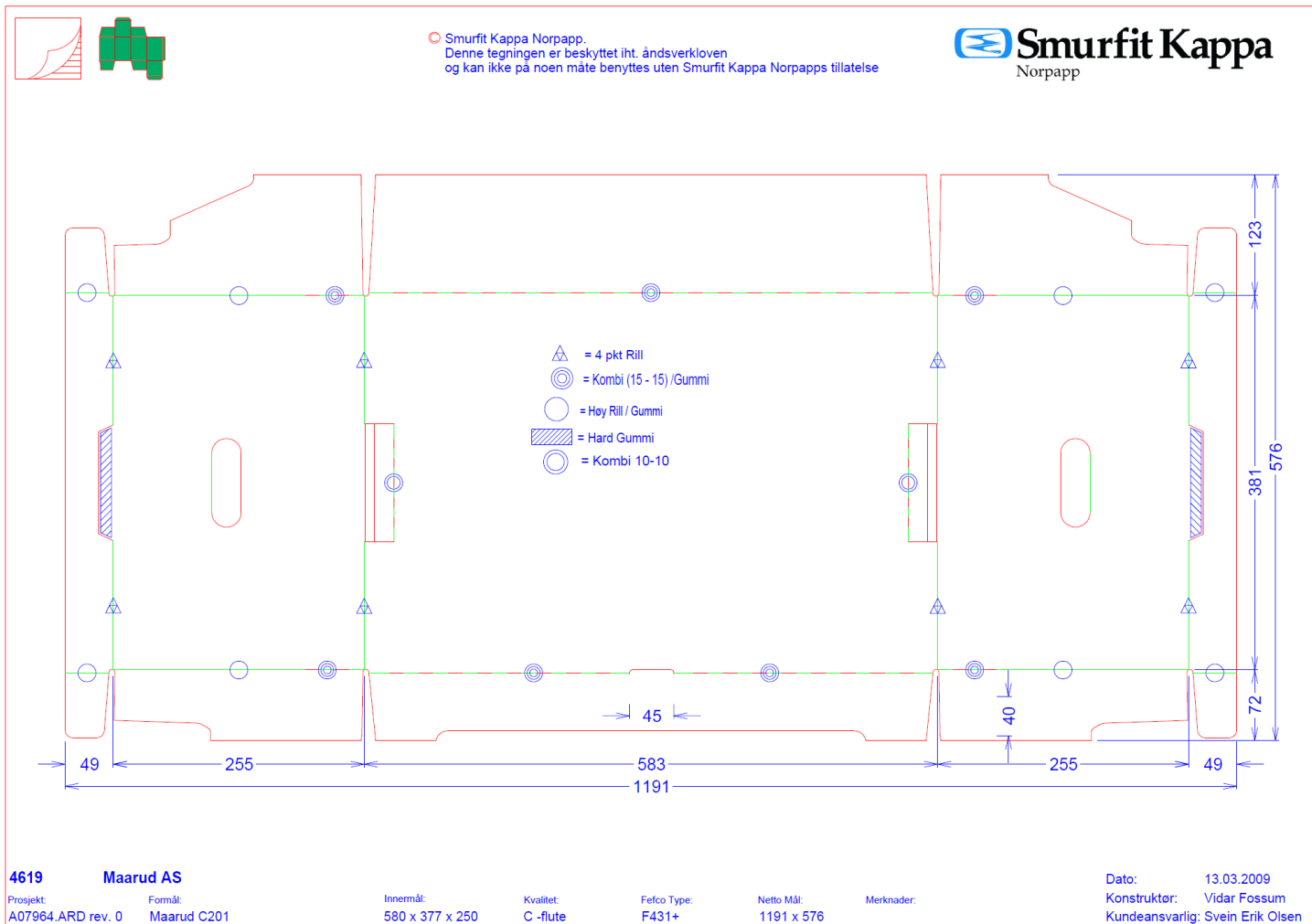
TE Traureiser



VÅGTANDADE KNIVAR



Bølgepapp



TE Traureiser



Forsterkede hjørner



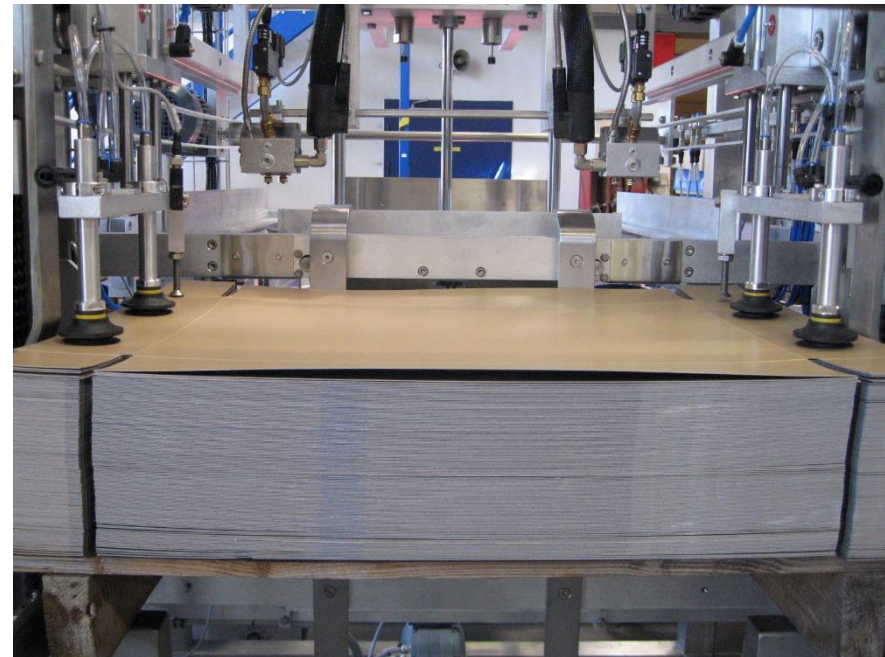
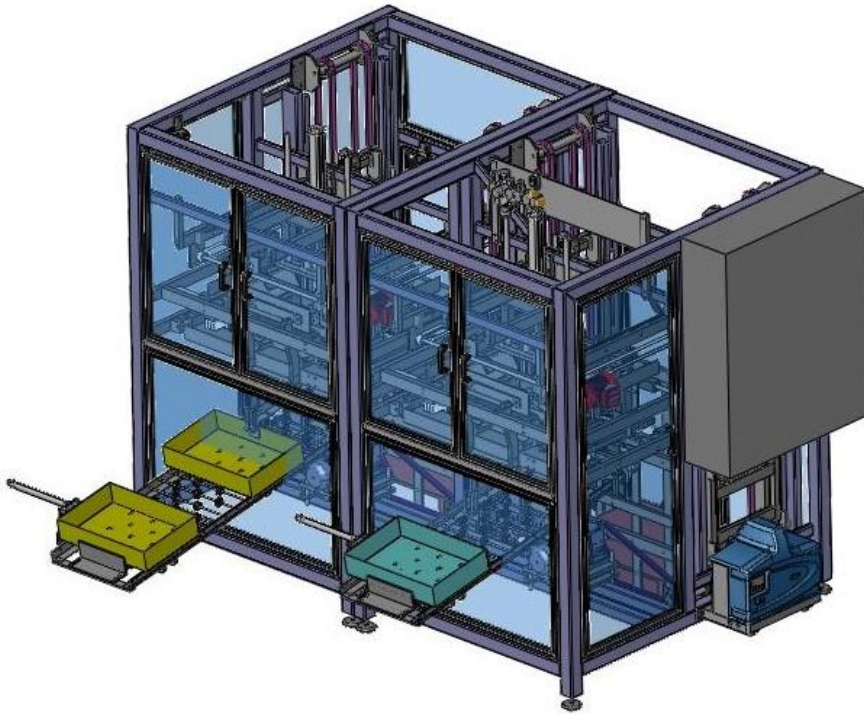
TE Traureiser



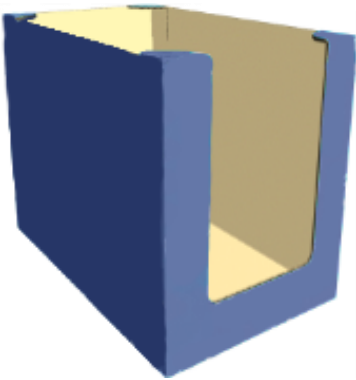
Topp klaff



TE Traureiser



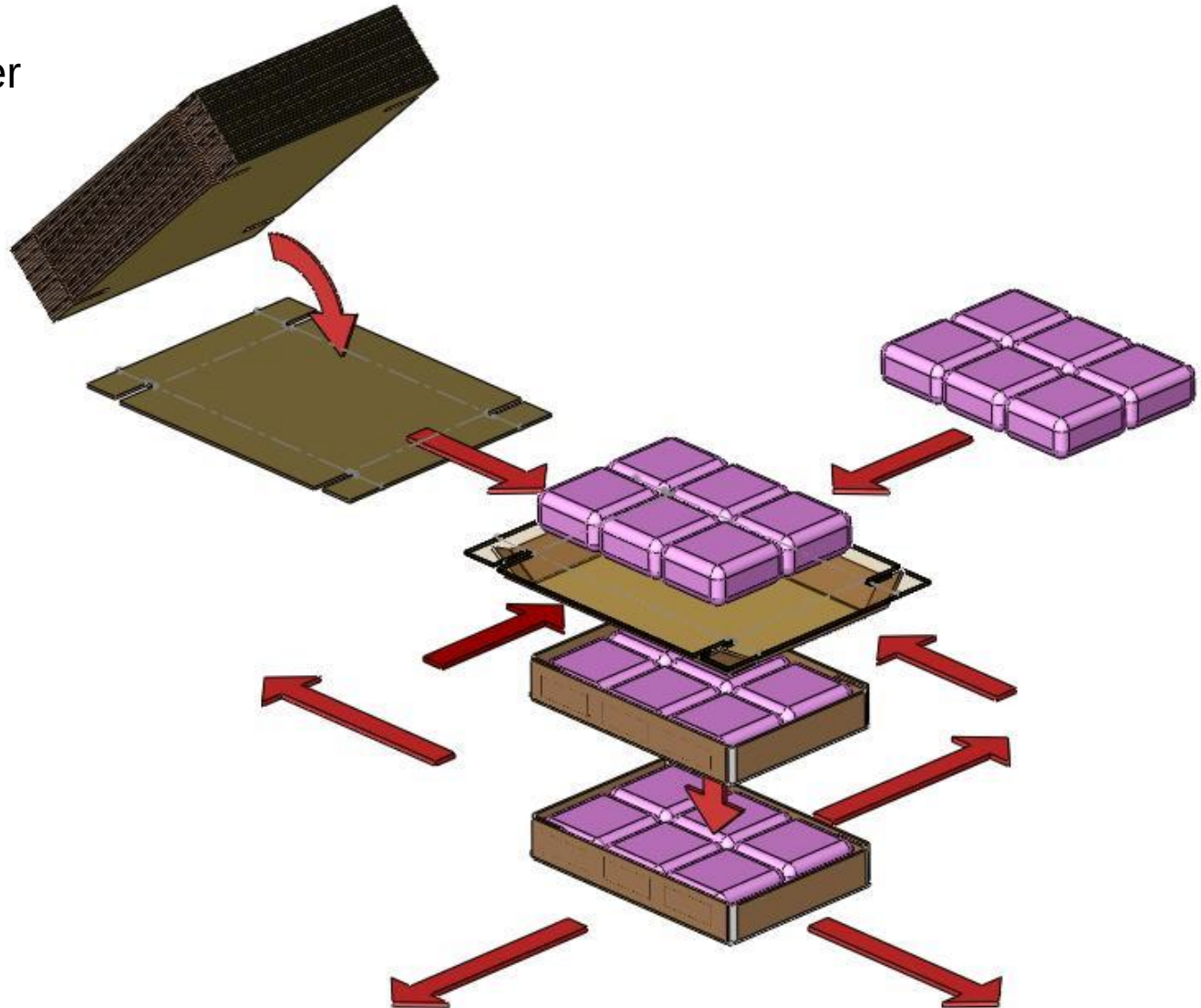
TP Traupakker



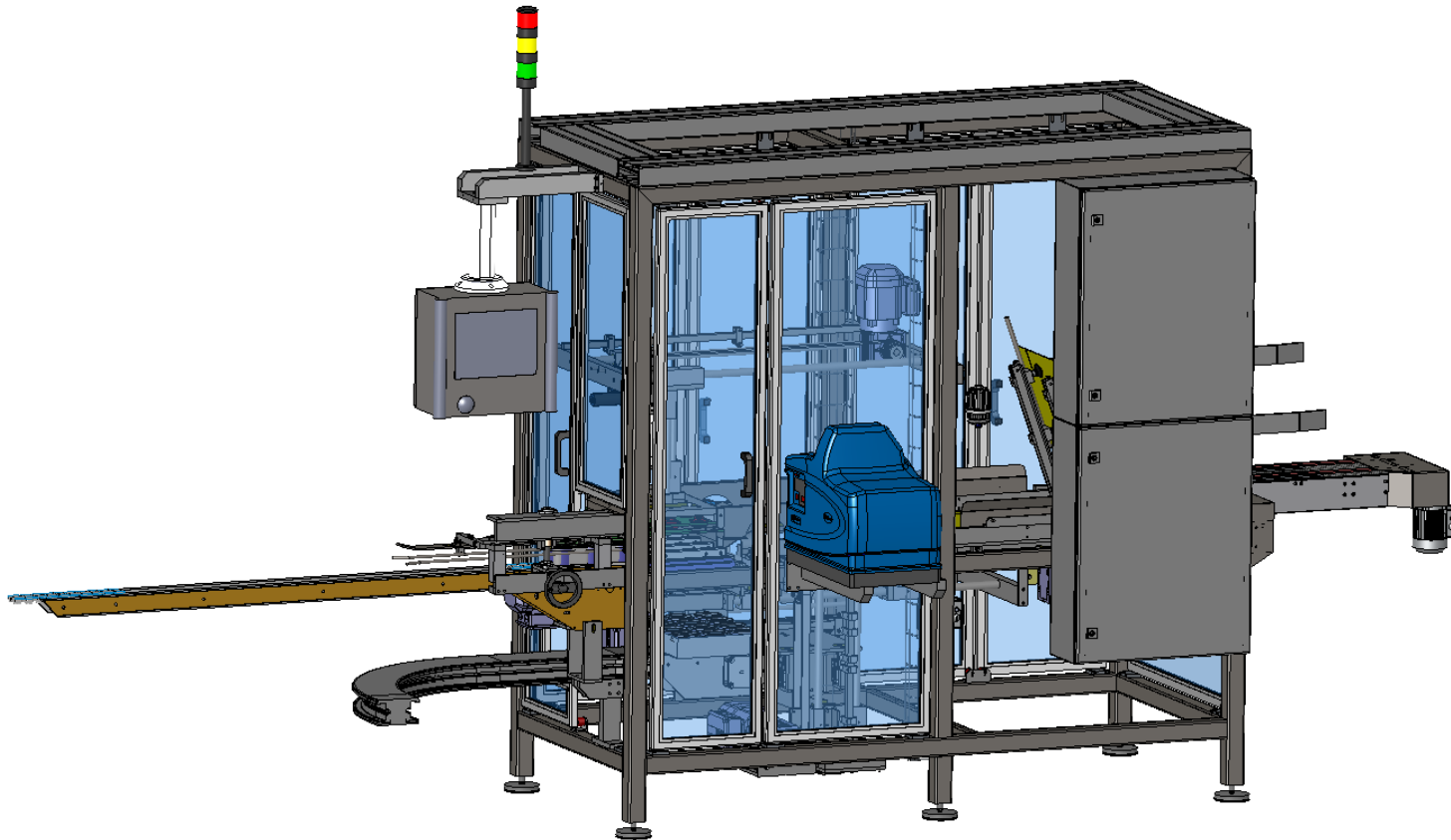
Hva er viktig å huske på om man vurderer kun
å bruke traue ?

Styrke i selve produktet må kunne ta vekt belastning
ved palletering / transport

TP Traupakker



Traupakker



Hulltrau

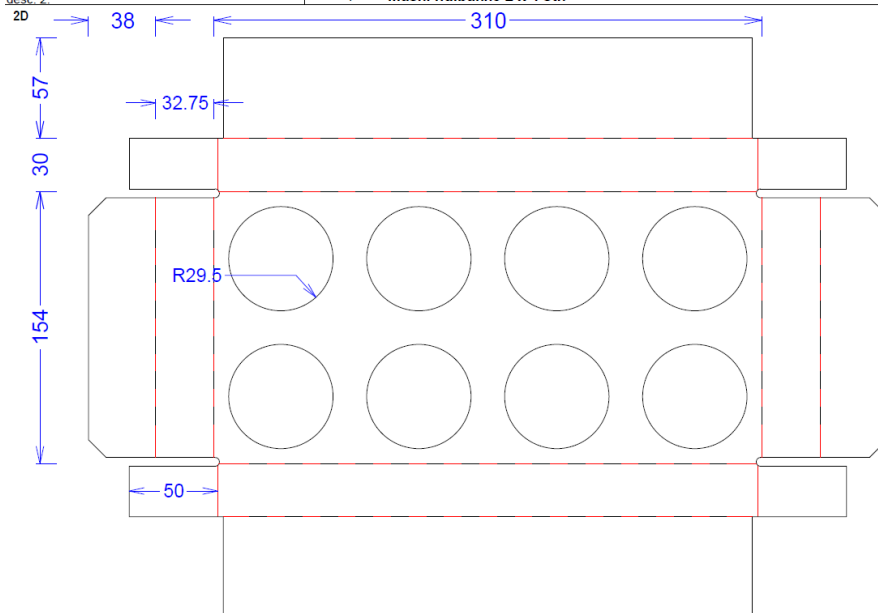


Hulltrau

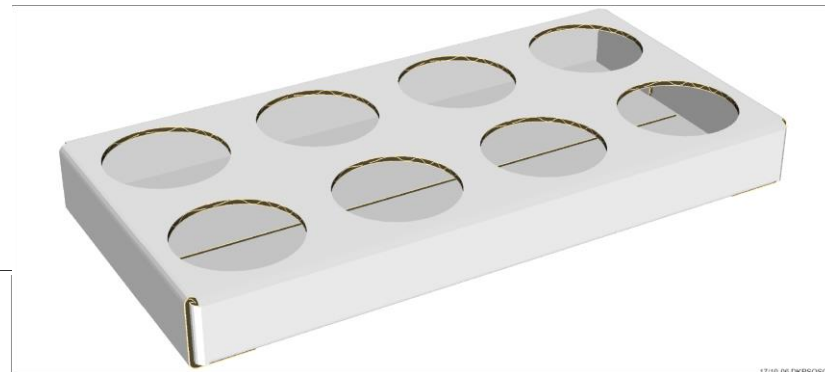


SCA Packaging

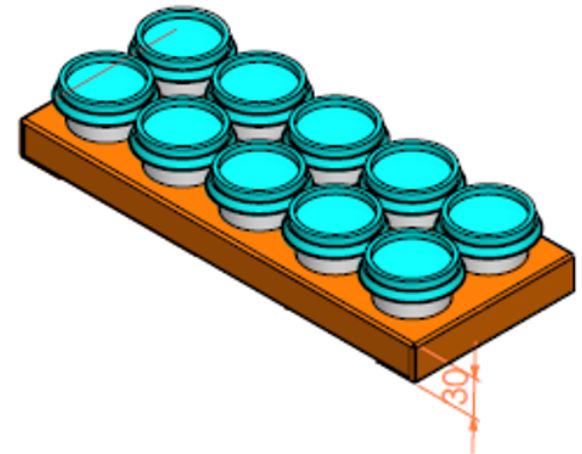
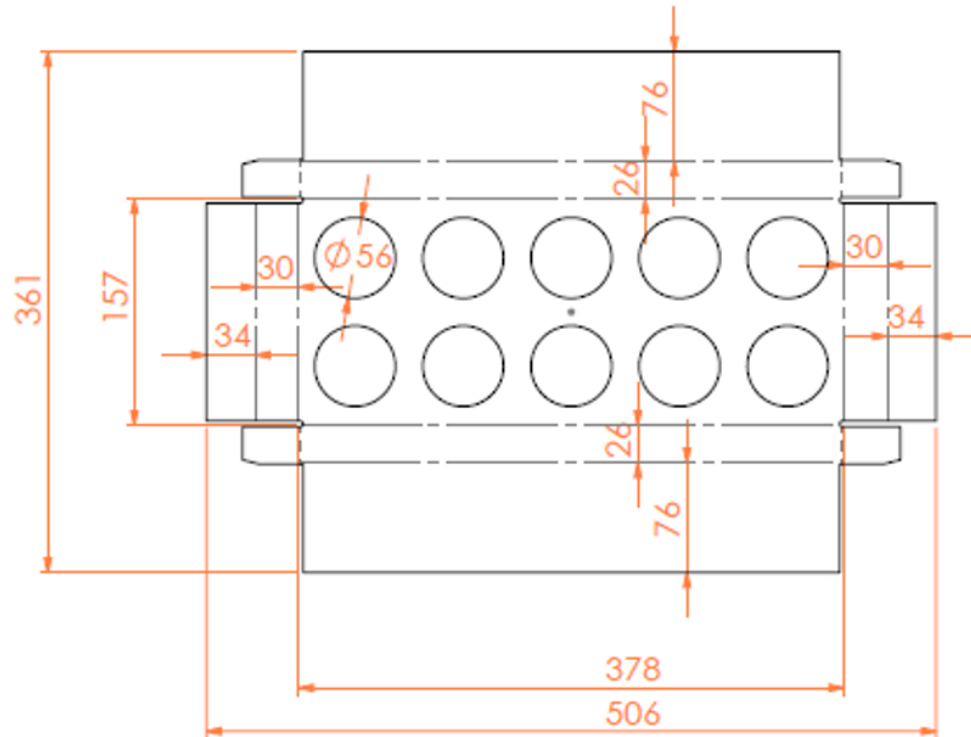
Customer: Arla Foods, Brabrand Mejeri		Design CAD nr.: CAD107199.ARD	Rev.: 0
Cust. no.: 161092	Fefco: Closure:	Dato: 15/04/08	
Project (Quotation)	L x W x H: 307 x 151 x 30	KA init.: DKPOTJP	
Notification.: 2064034-20/16646	Flute type B-Flute	Cal.: 3 mm	SA init.: DKPMIBE
Cust. mat. no.:	Product size: 328 x 451.5	Design area: 0.105	Waste %: 14.64
Cust. desc. 2:	Description: Mask. hulbakke 2 x 4 stk		



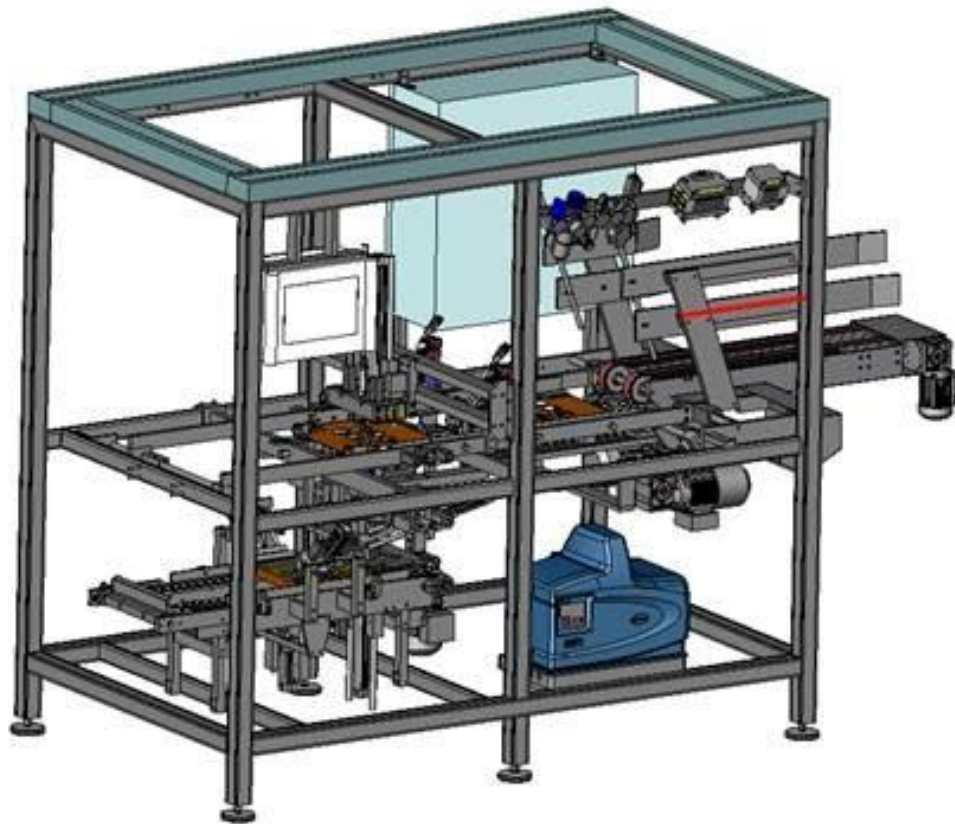
Set fra
UDYENDIG
side



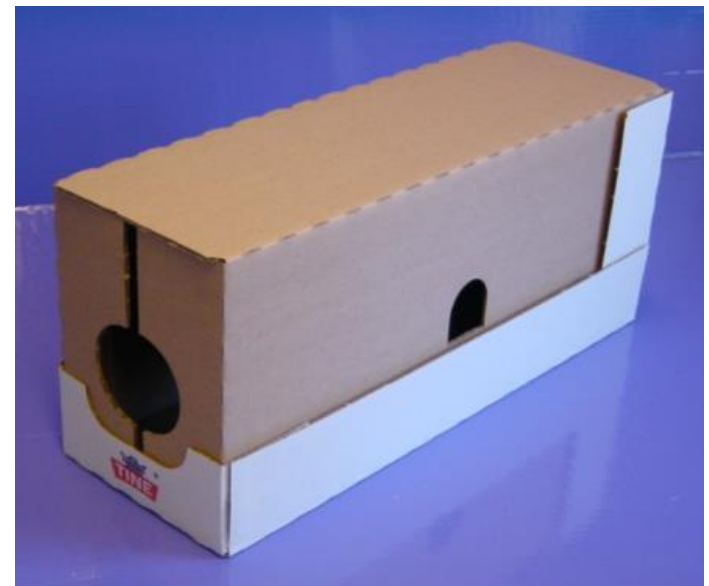
Eksempel hulltrau



Hulltraureiser



Trau - Lekk



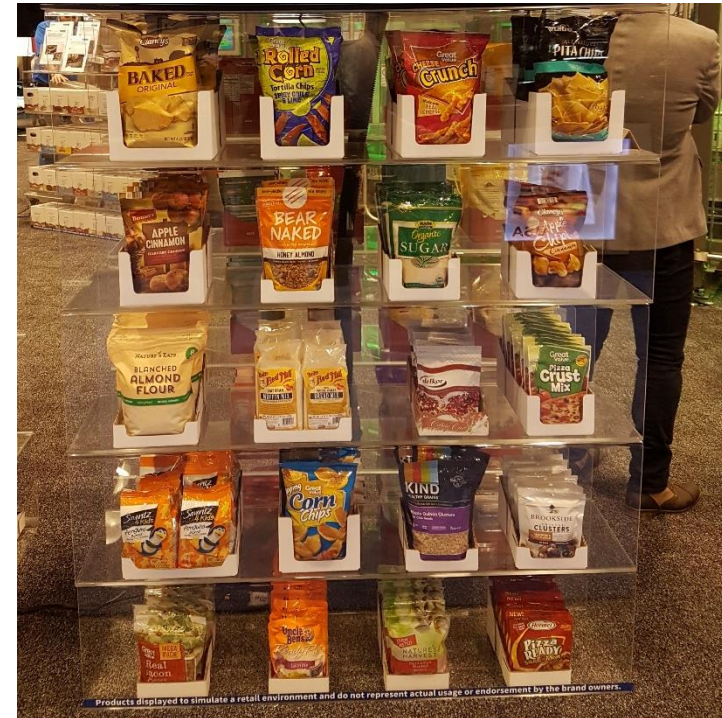
Trau - Lokk



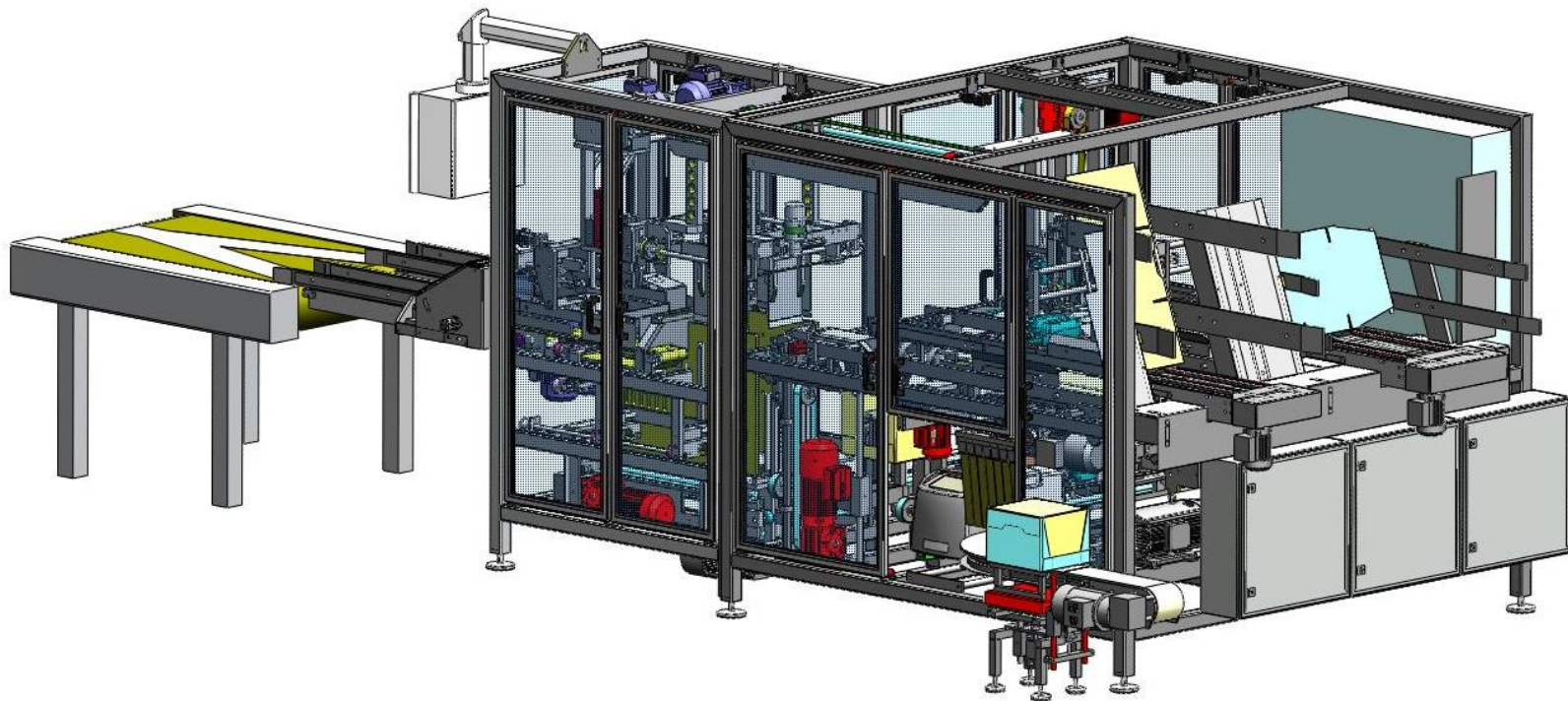
Trau - Lokk



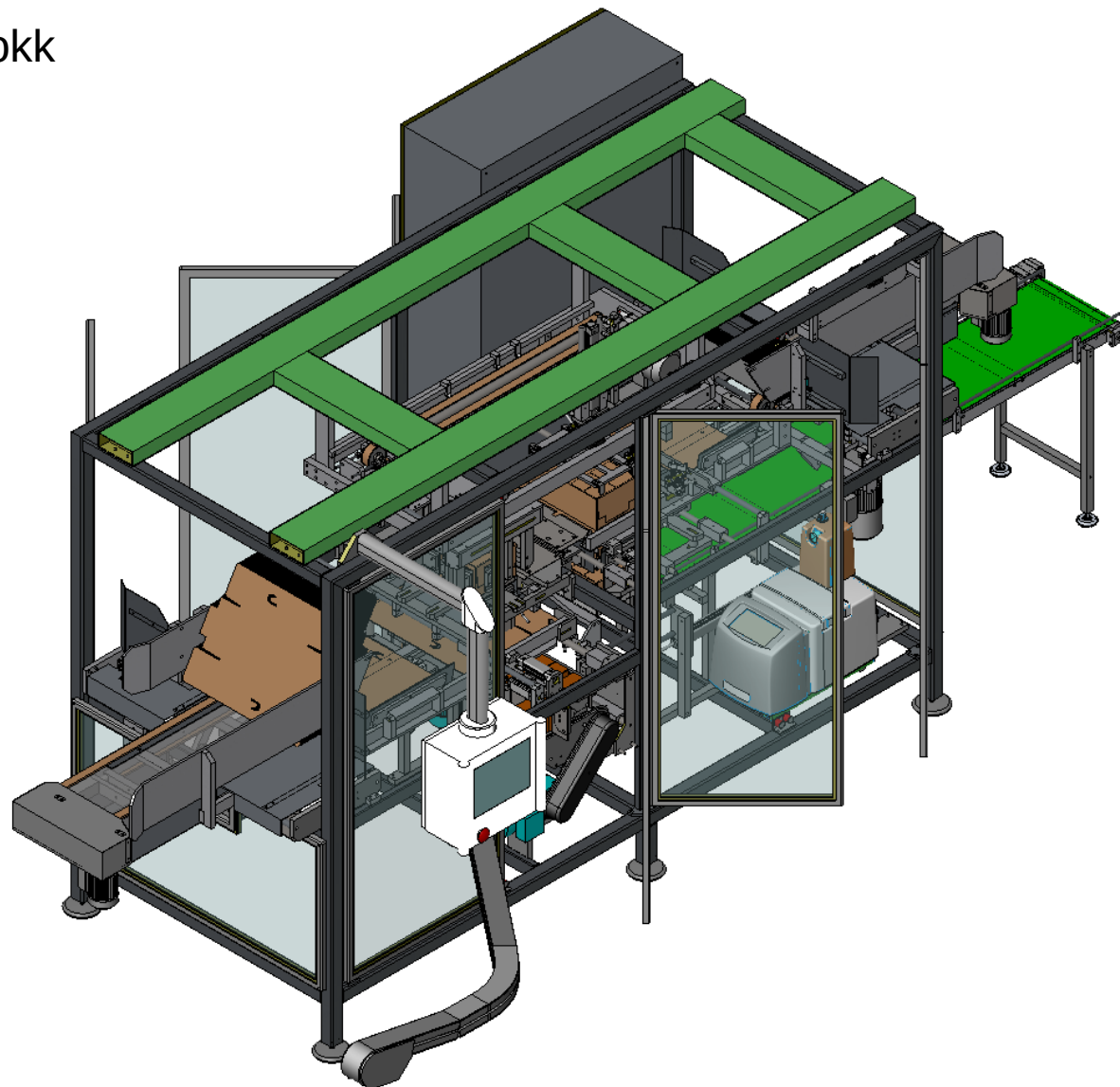
Products displayed to simulate a retail environment and do not represent actual usage or endorsement by the brand owners.



Trau - Løkk



Trau - Lökk



Trau - Lökk



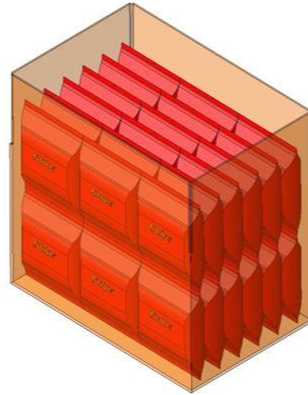
Trau - RSC



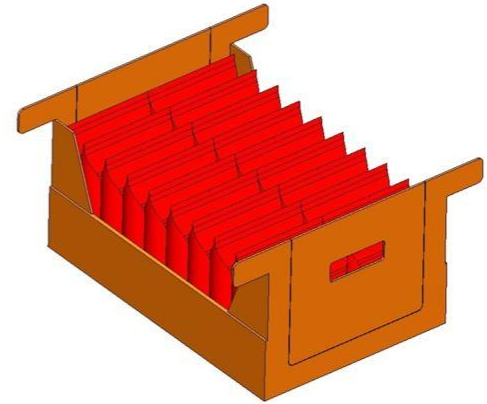
Prinsipp TCP



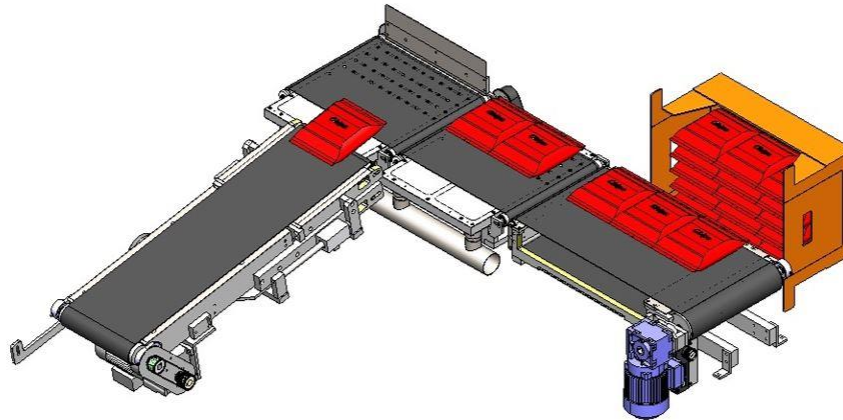
One layer



Two layer

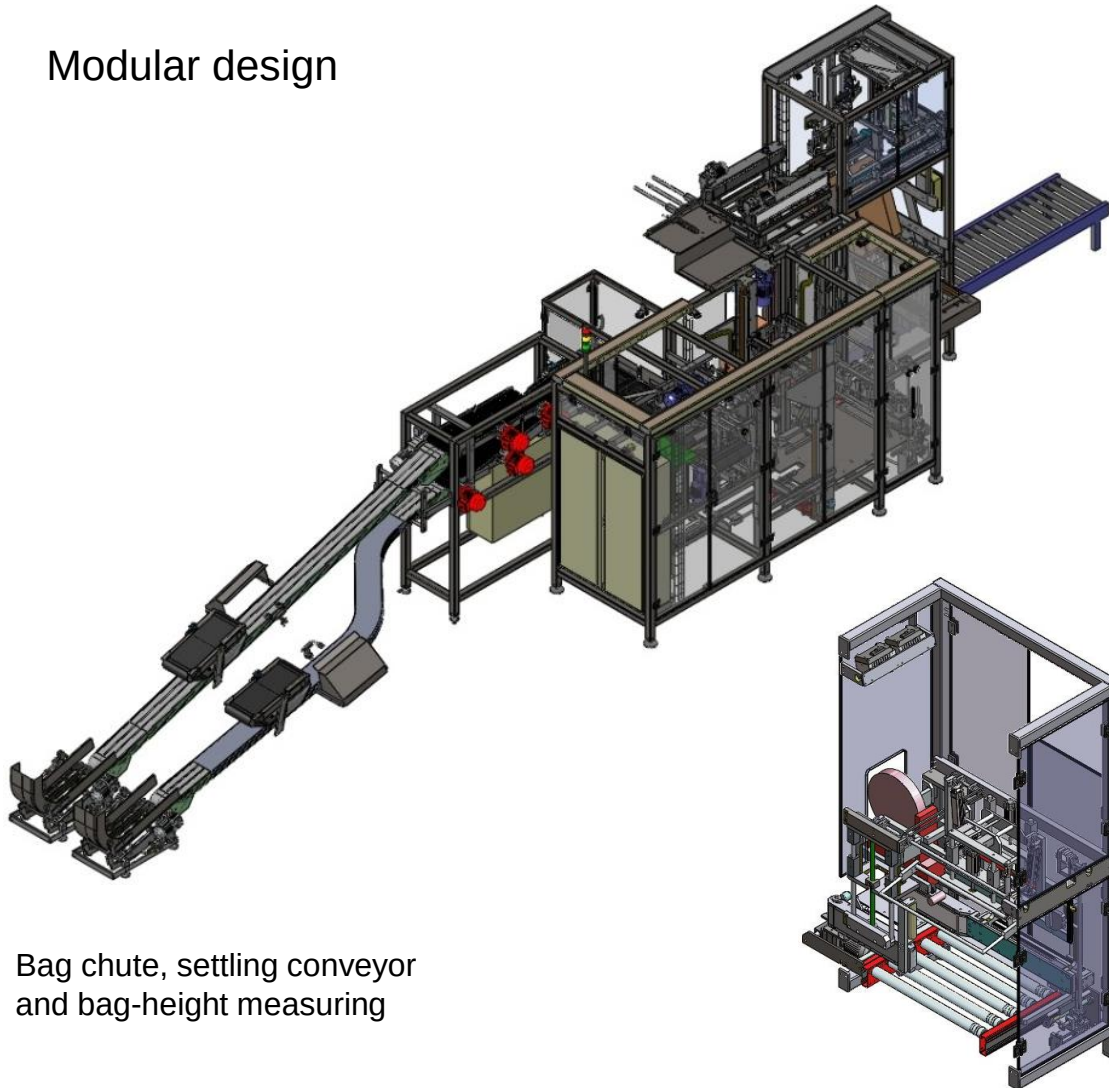


Tilting of bags



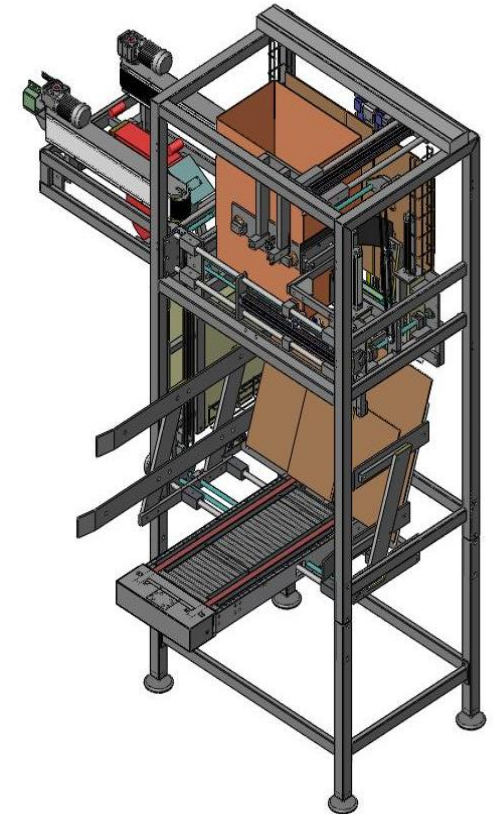
Maskin eksempel TCP

Modular design



Bag chute, settling conveyor
and bag-height measuring

Case Sealer

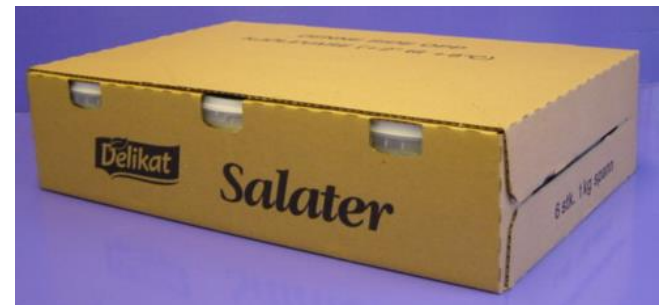


Case Erector

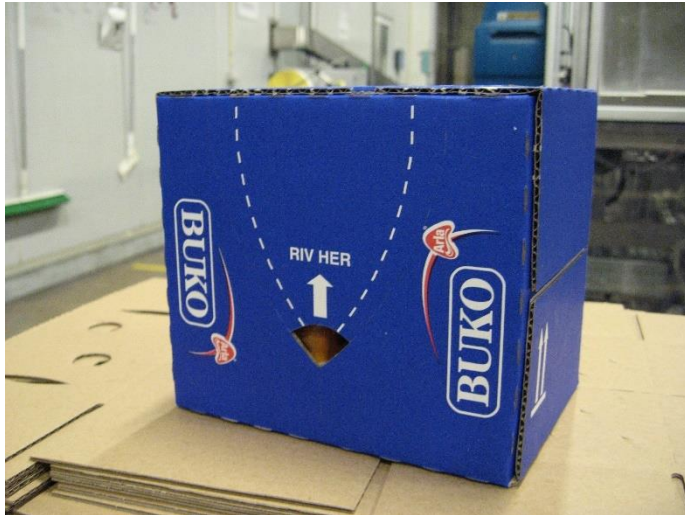
Maskin eksempel TCP



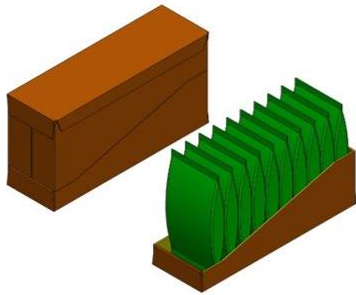
Wrap Around



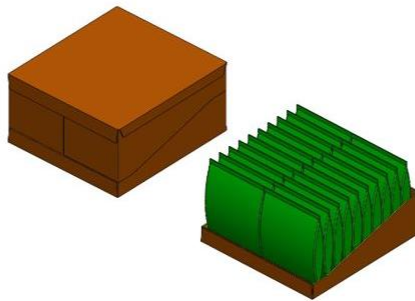
Wrap Around



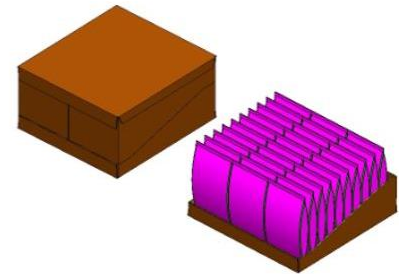
Wrap Around



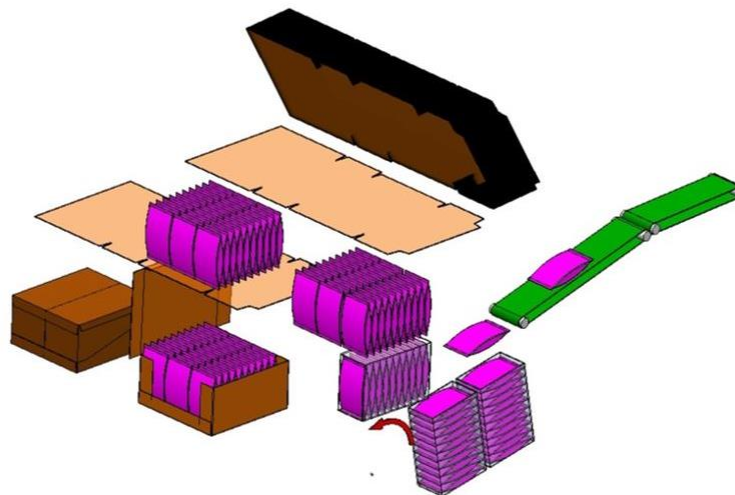
One facing



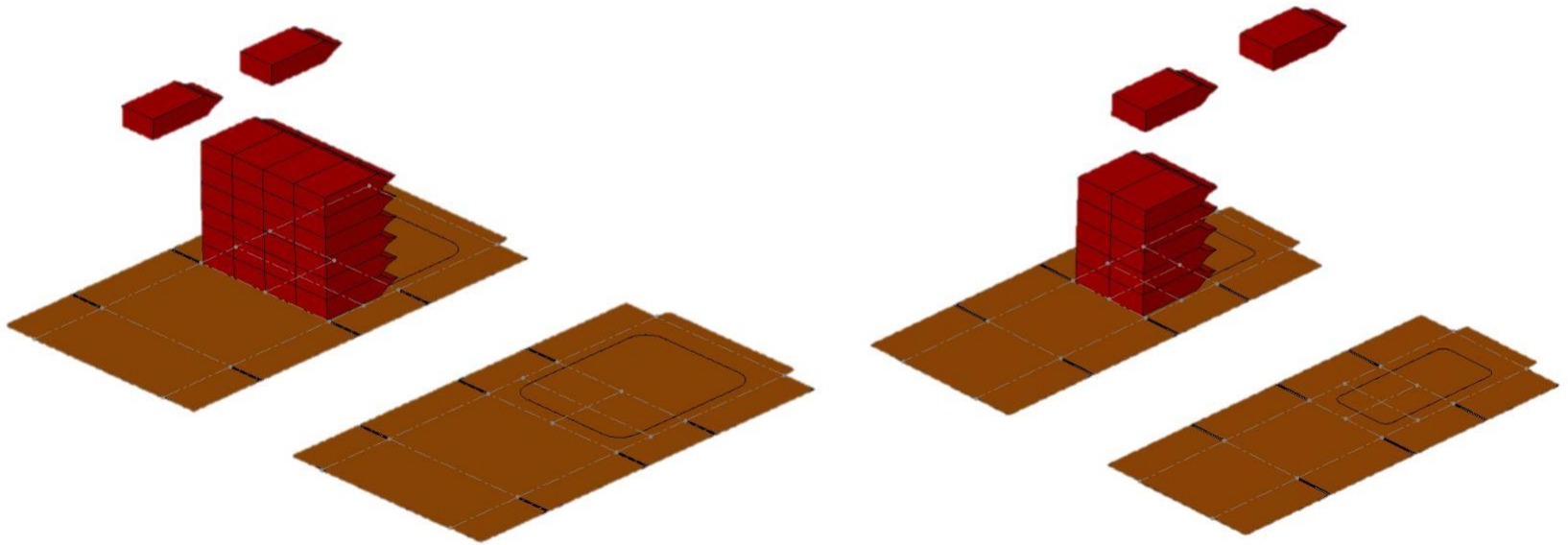
Two facing



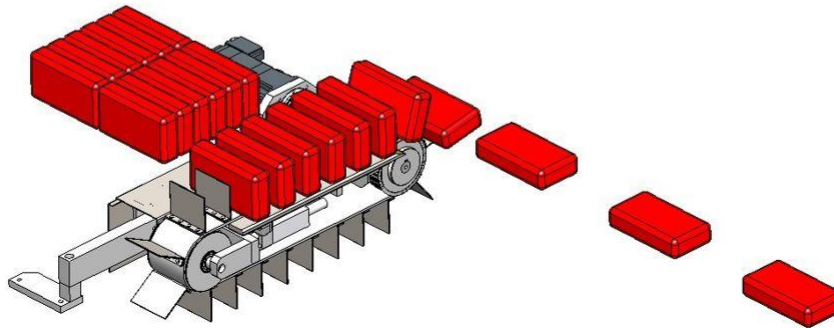
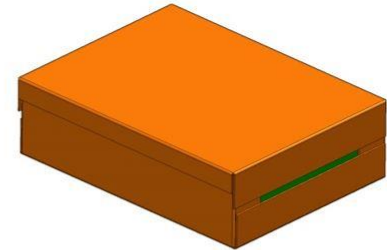
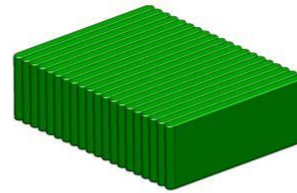
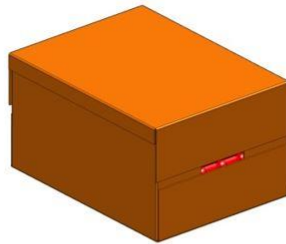
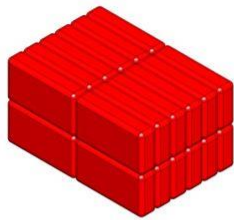
Three facing



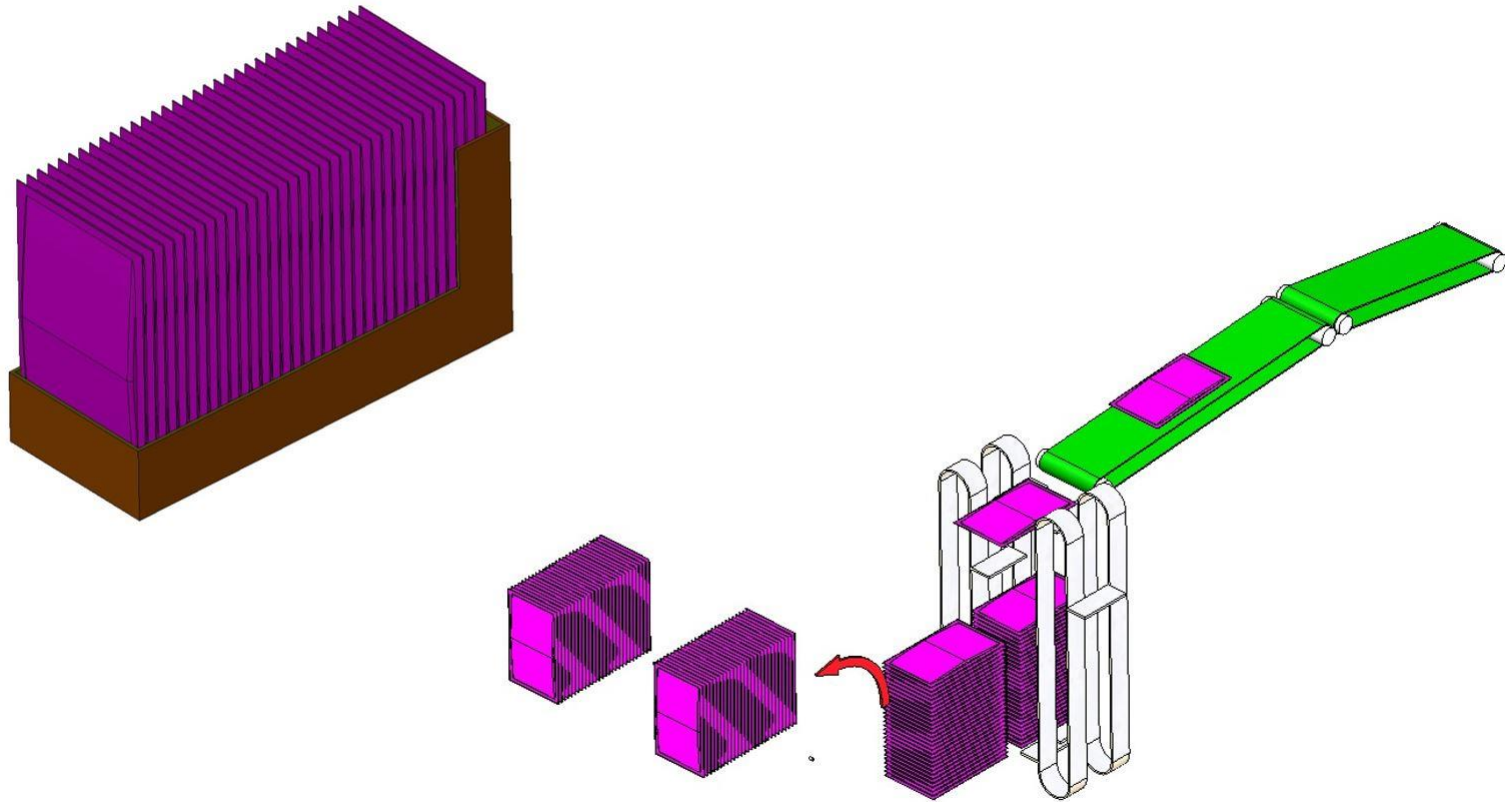
Wrap Around



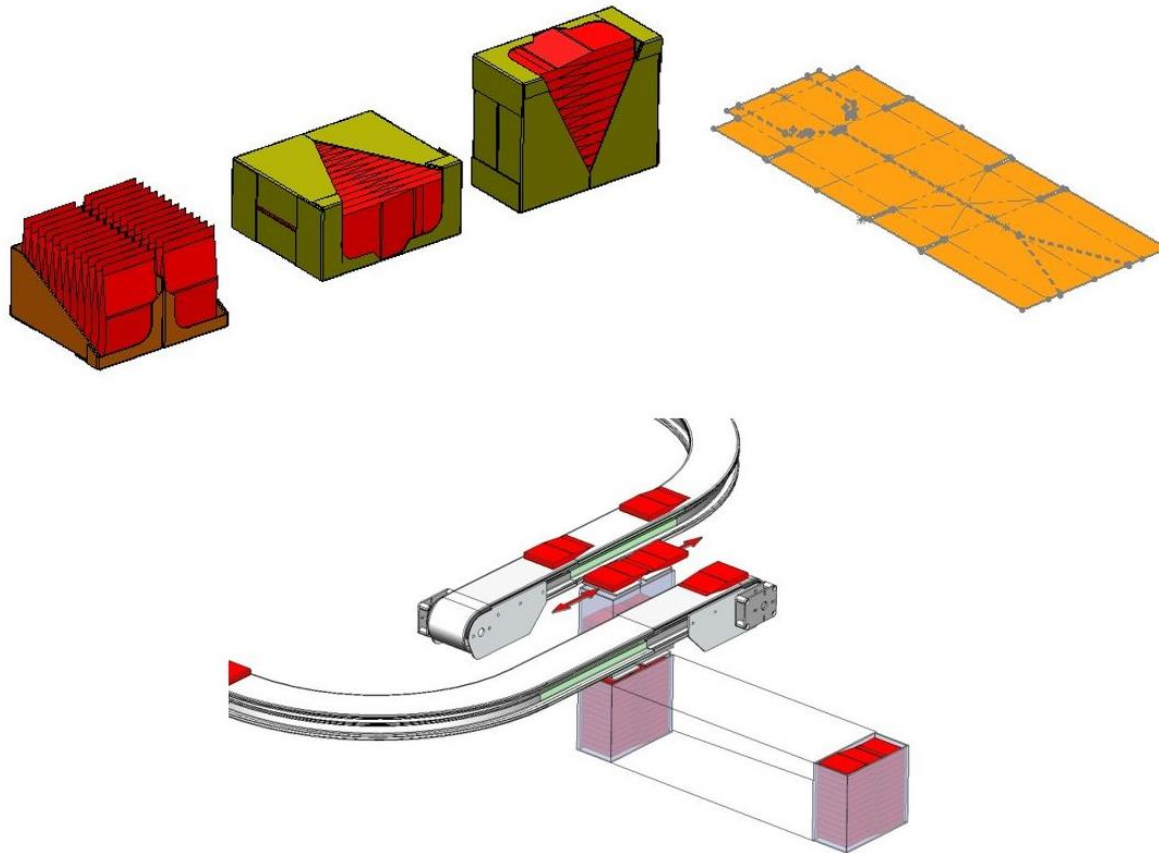
Wrap Around



Wrap Around

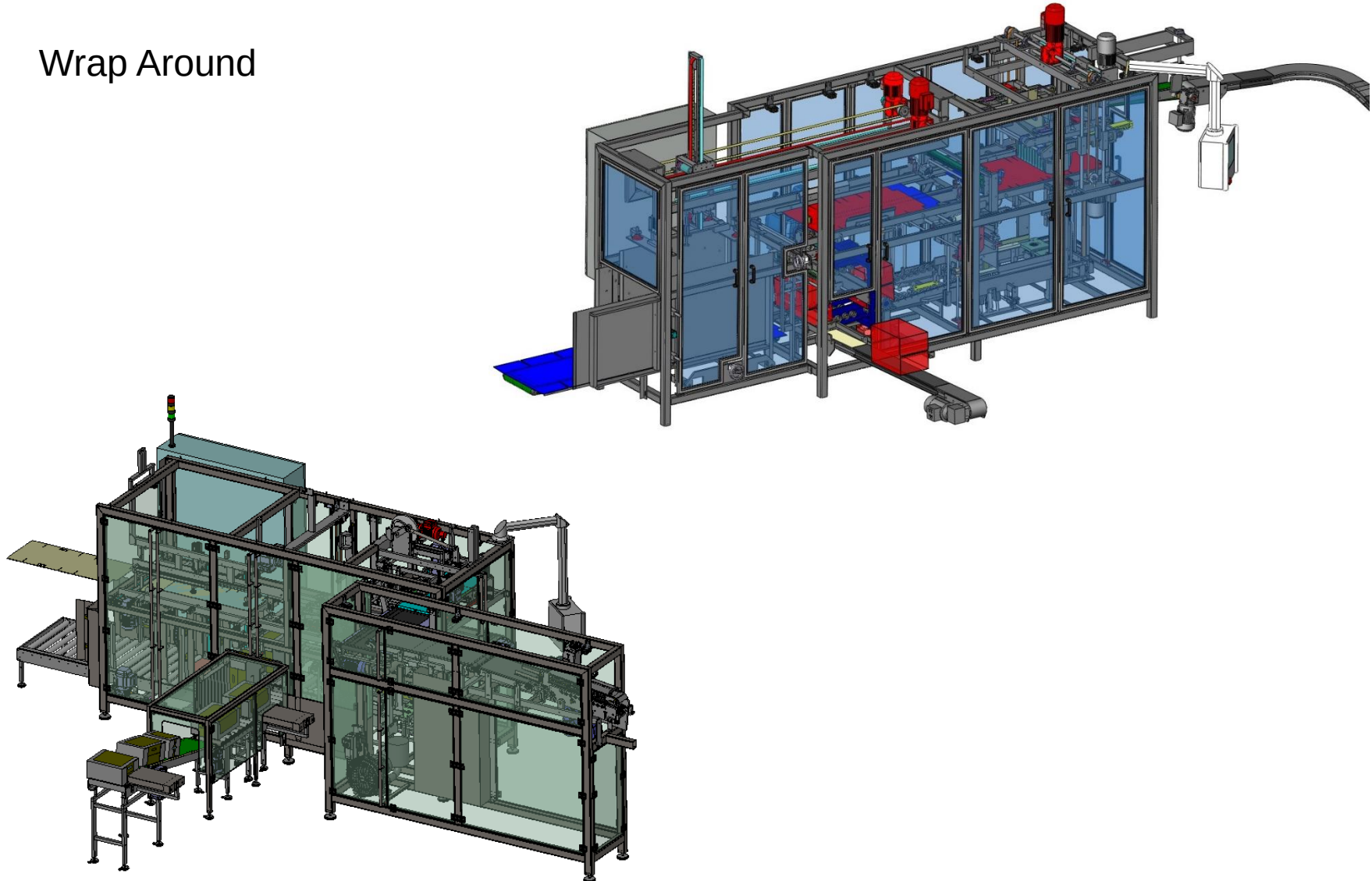


Wrap Around

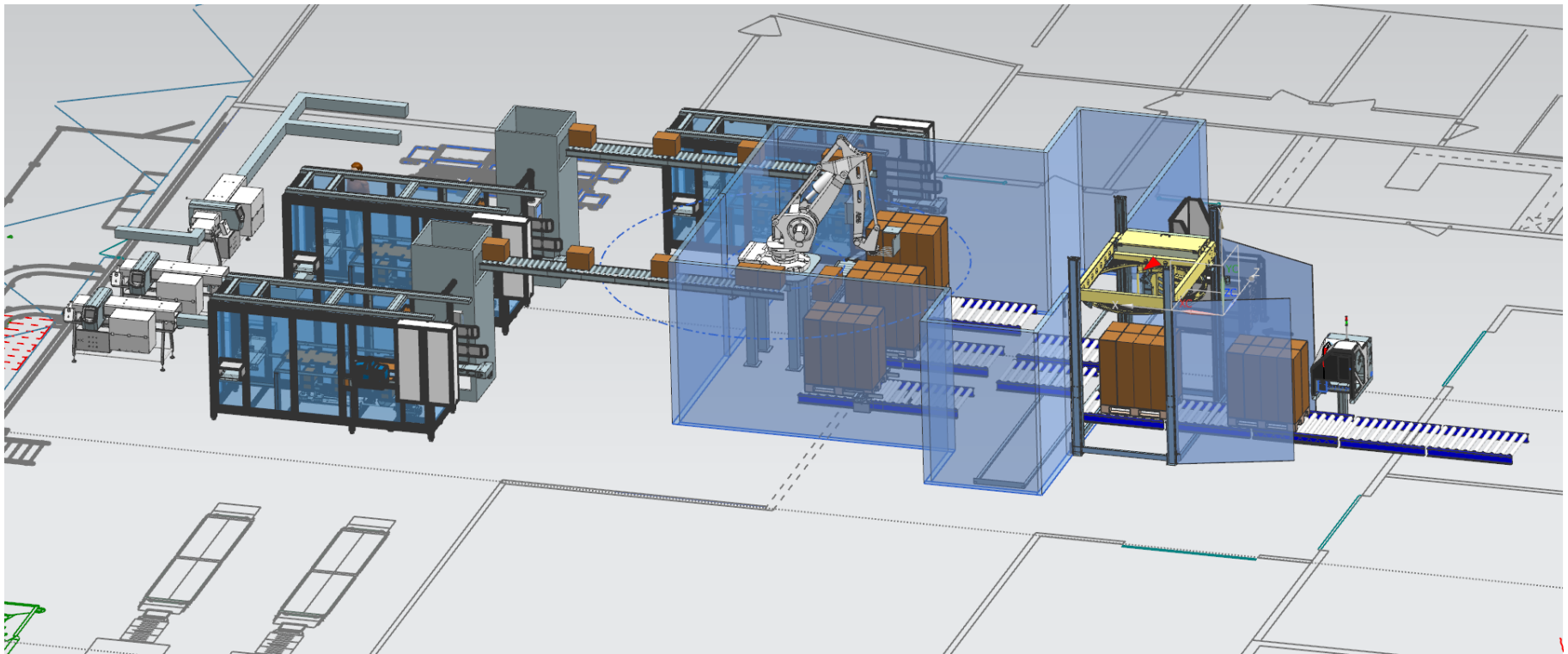


Maskin eksempel WP

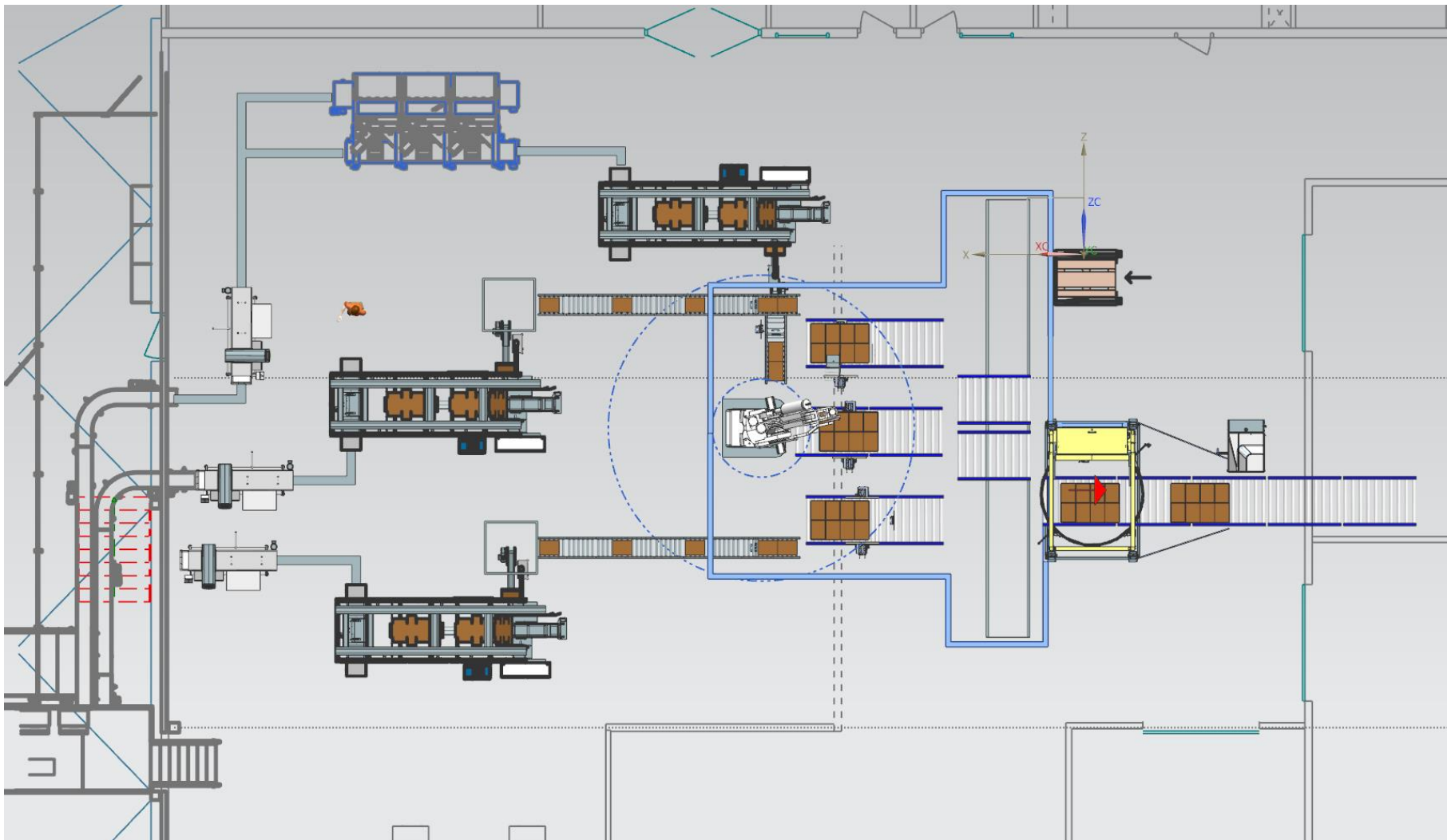
Wrap Around



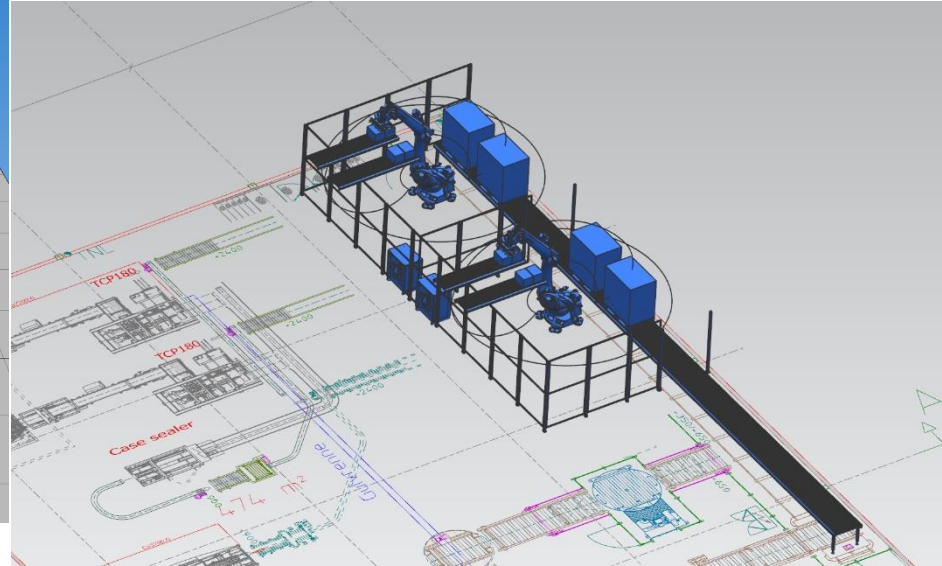
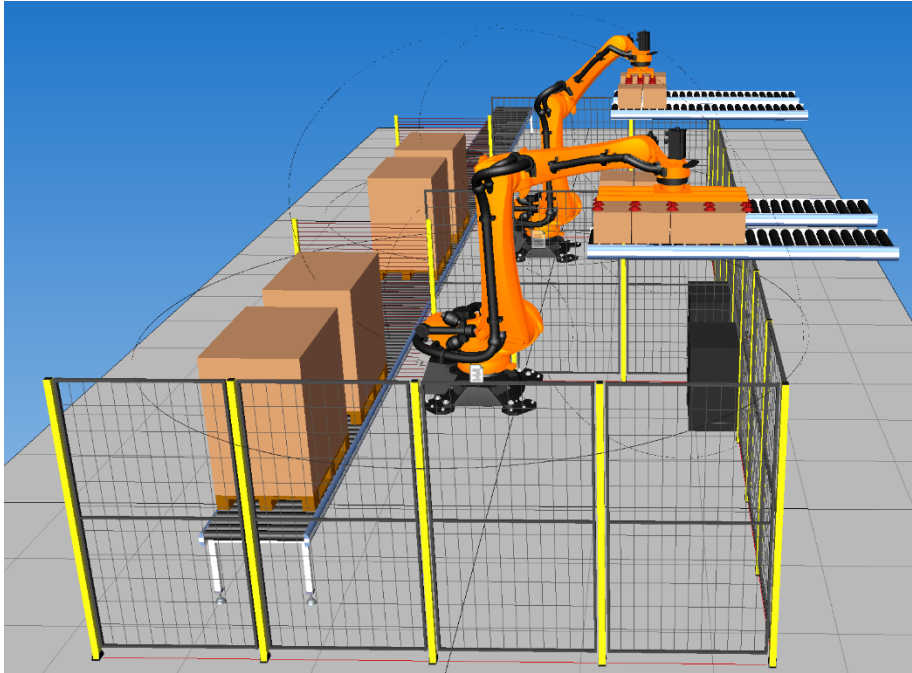
Eksempel layout



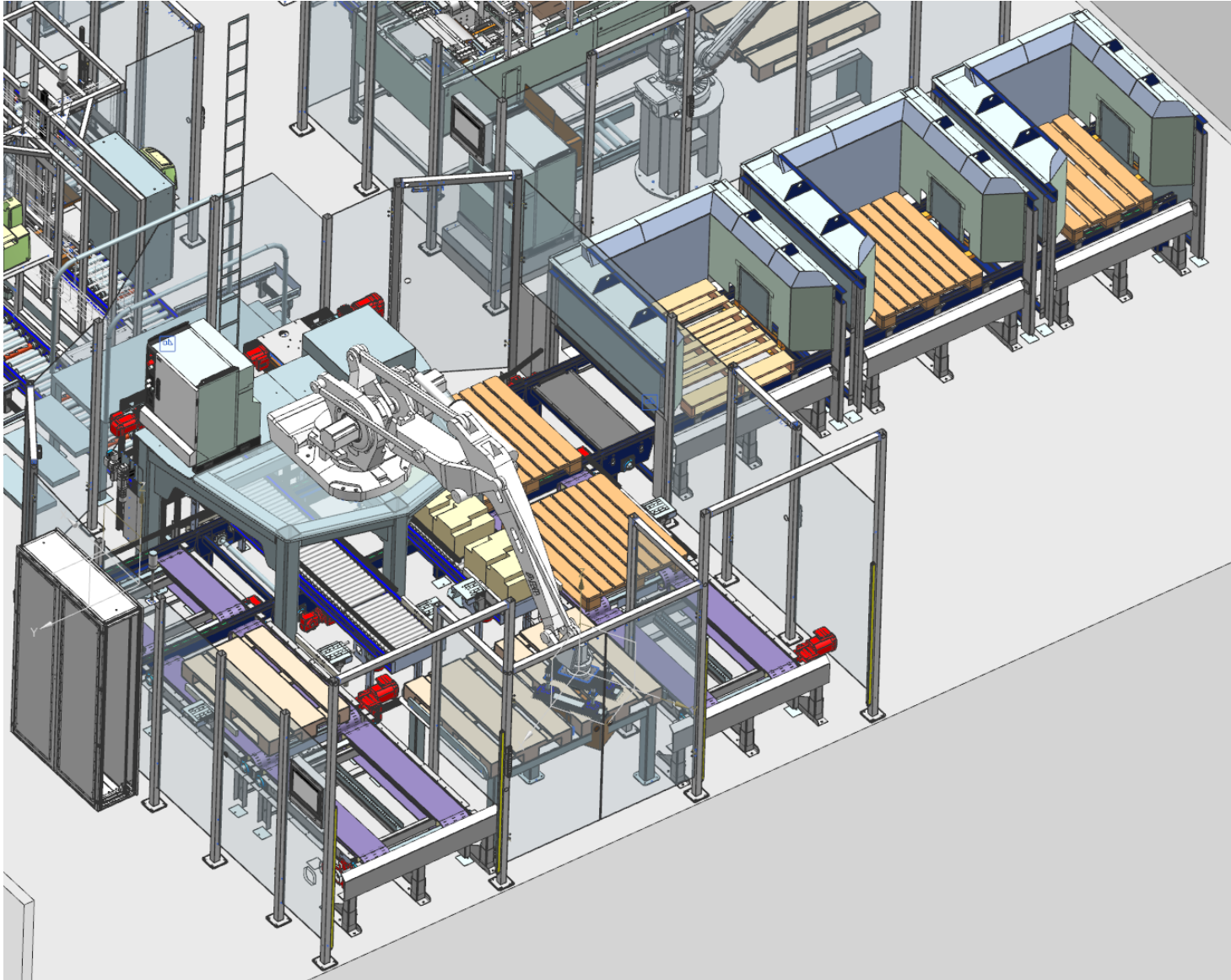
Eksempel layout



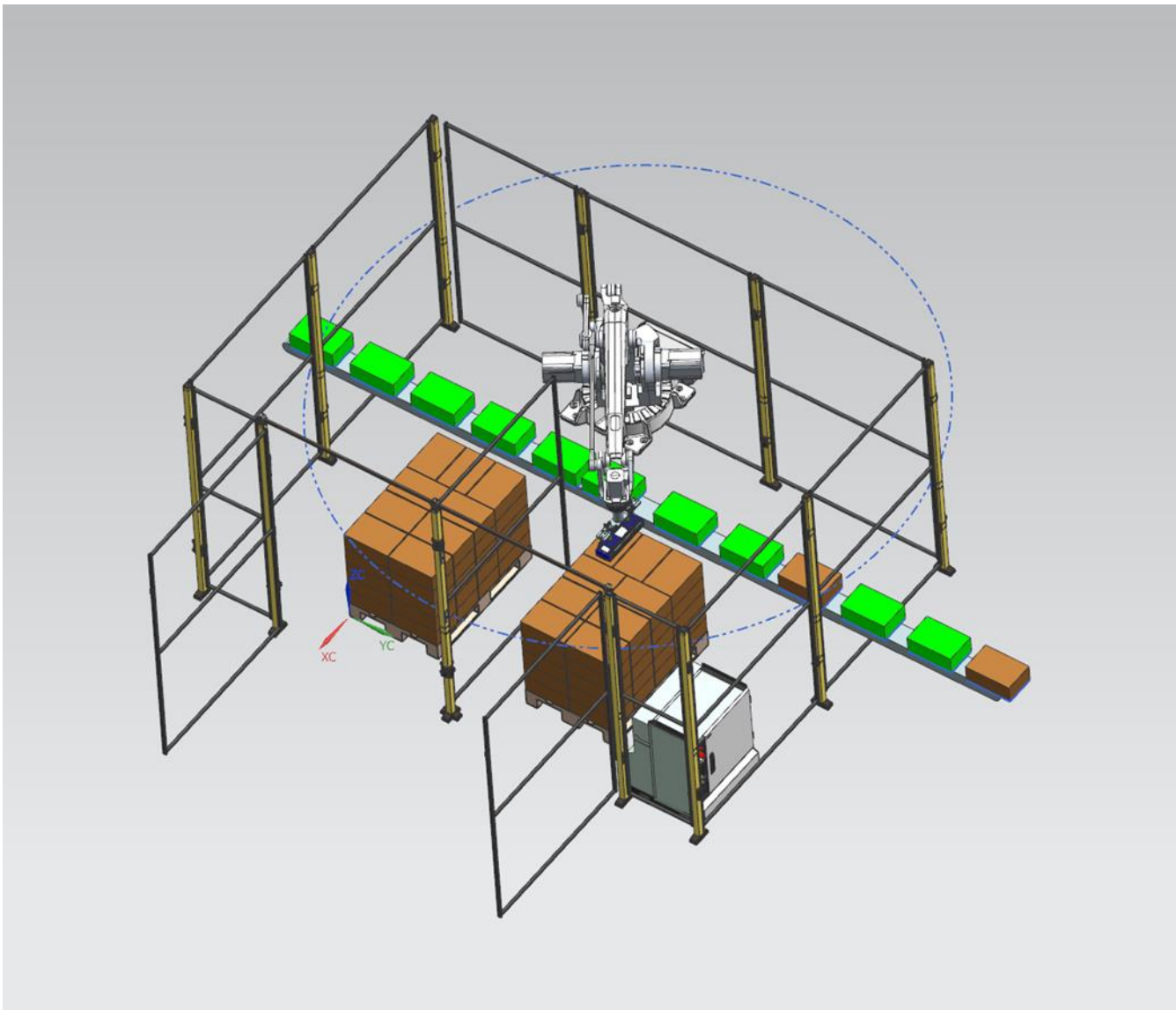
Palletering



Palletering



Miks av kasser før palleteing



Miks av kasser





Total Cost Solutions... the result of Practical Innovations

Using the Four Modules of our CVA
Customer Value Analysis

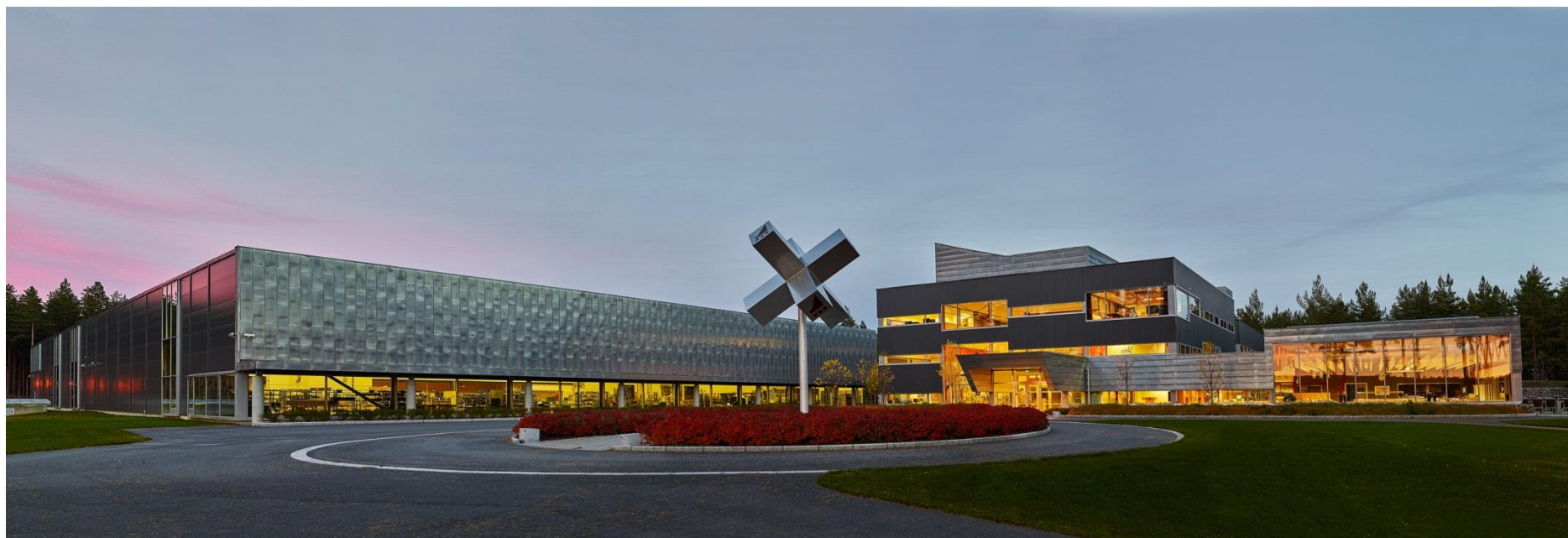


- Package Optimization**
Right package for the application
- Warehouse Optimization**
Reduced handling and storage costs
- Line Efficiency**
Streamlined package line efficiency
- Supply Chain Efficiency**
Optimized freight and distribution costs





Takk for oppmerksomheten



Putting Ideas into Practice

www.tronrud.no