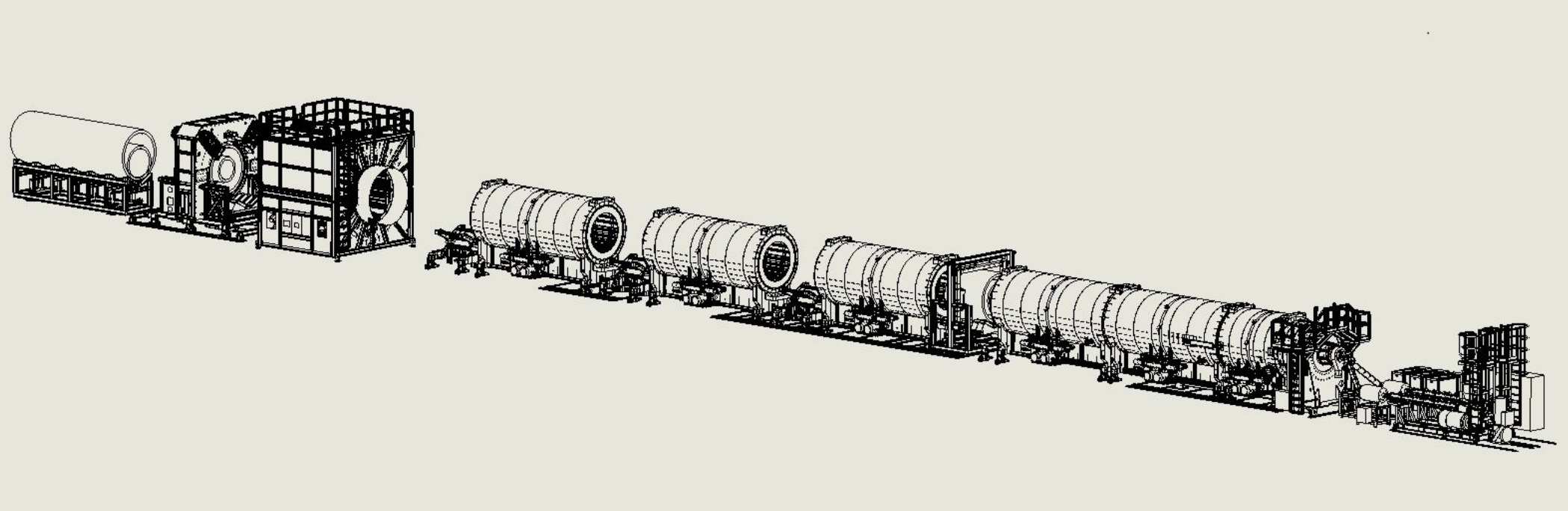
2000HDPE管材生产线技术要点

Technical Introduction

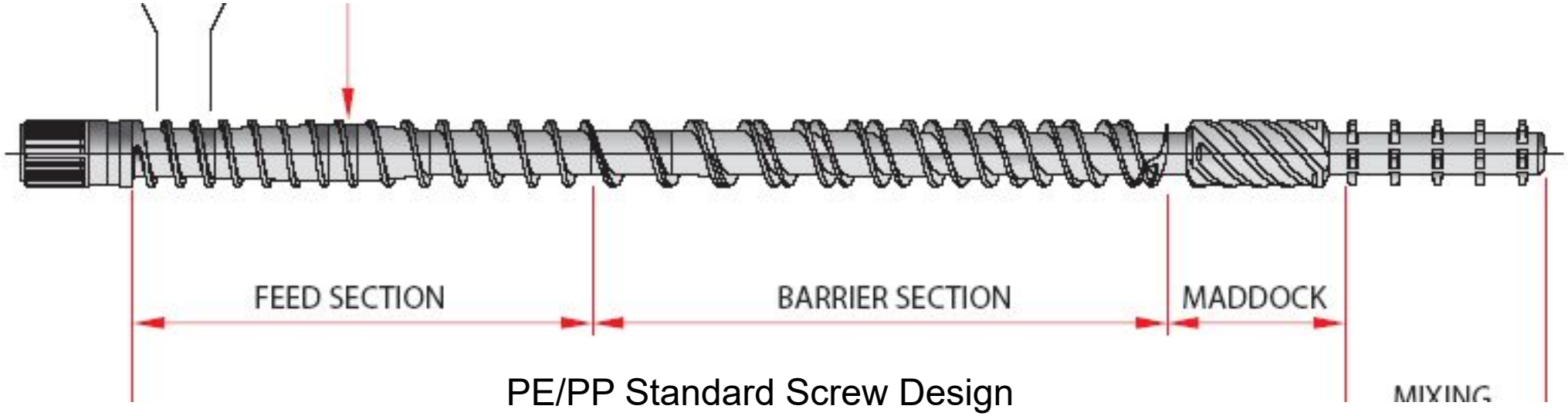


联塑塑料管道挤出装备技术
LIANSU Plastic pipe extrusion technology

•螺杆长径比：40：1该技术（长径比40）在提高输出率的基础上提高了熔融质量，减小能量消耗。

Screw L/D ratio: 40:1

This technology (L/D 40) improves melt quality and reduces energy consumption while increasing output rate.



PE/PP Standard Screw Design

Screw working principle :

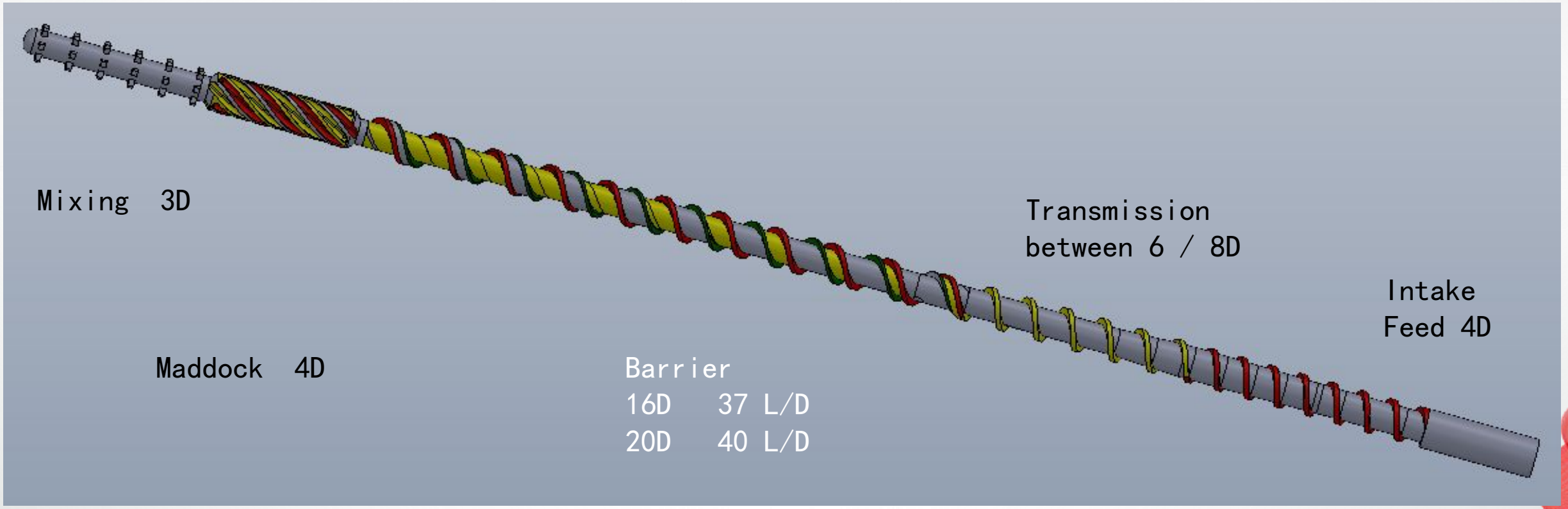
main components of a screw

- Solid feeding — melting and plasticising transportation
  - by shearing — of molten material / mixing

LIANSU EXTRUDER SCREW TECHNOLOGY

Plastification is 90 % of Energy 95 % from Motor
Pumping is 10 % of Energy

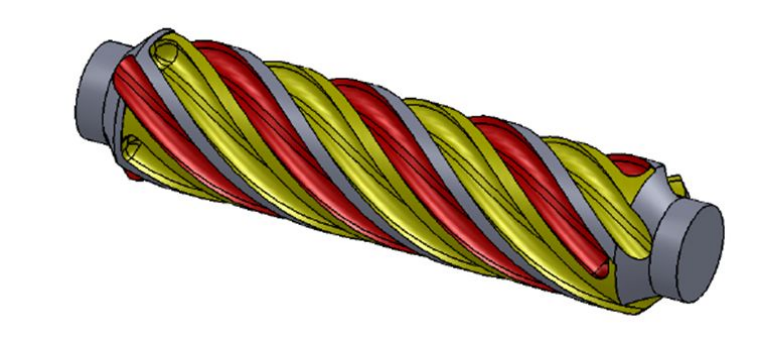
Spec. output of an extruder is related to solid feeding technology

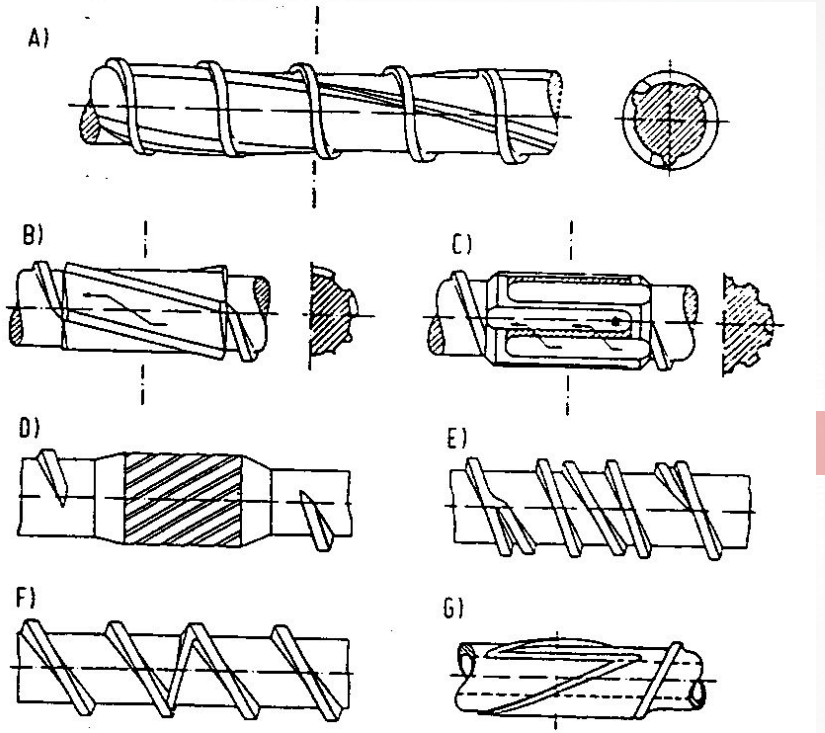


molten material

melting and plasticising

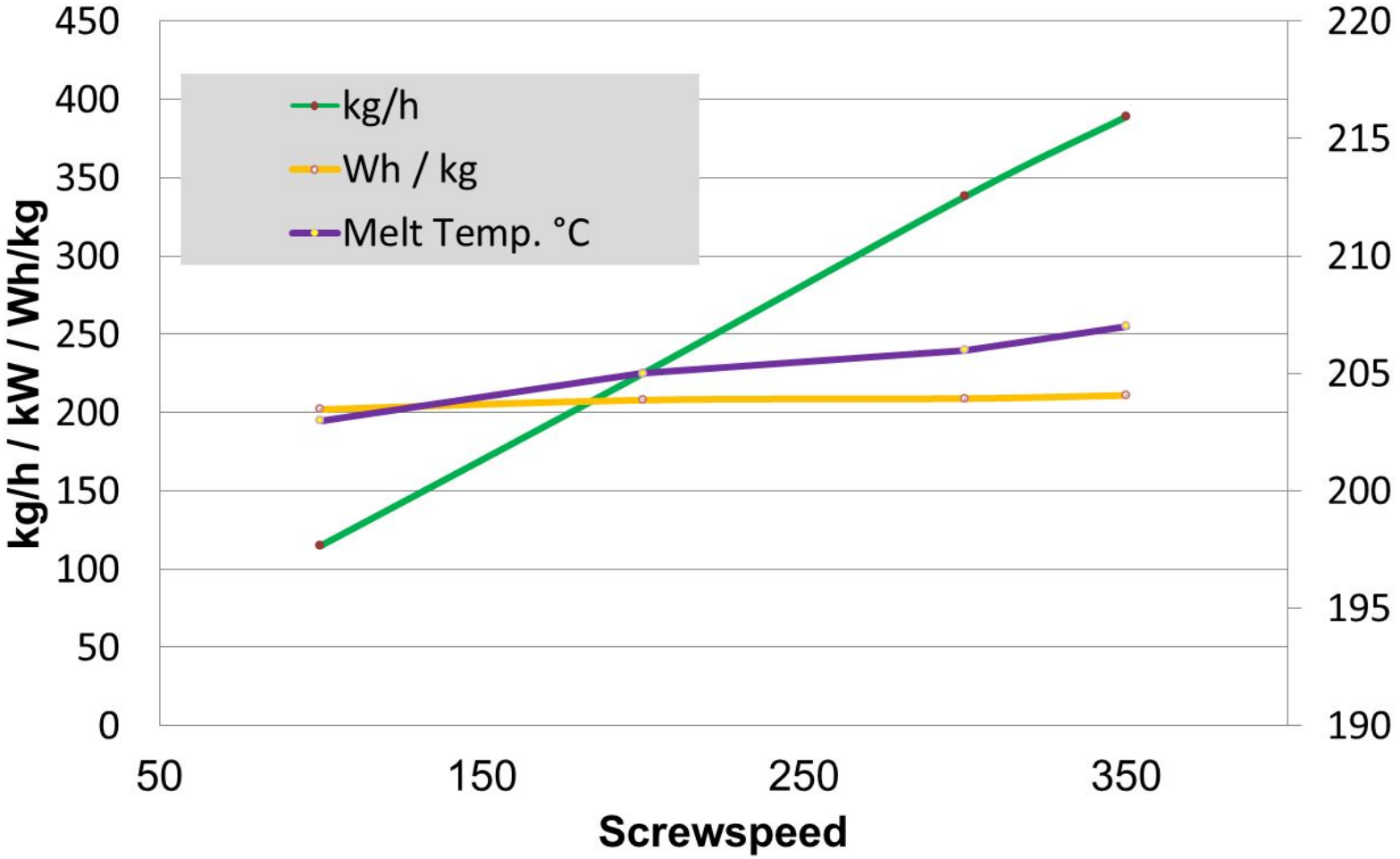
Solid feeding

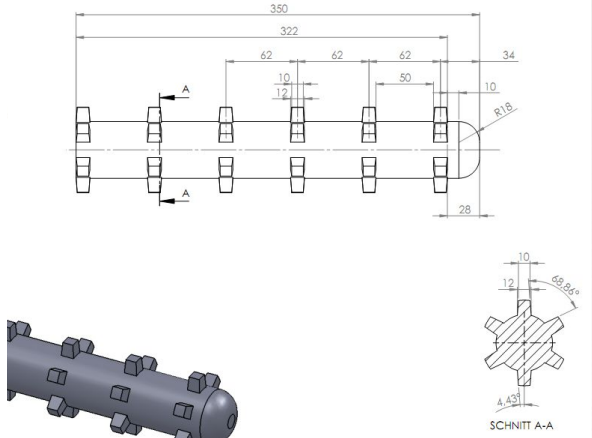




Additional barrier part with throttle effect

Mixing





Type of tip:

- Standard mixing tip
- High mixing tip
- Pinaple mixing tip
- Dynamic mixer

塑料熔体温控技术

Plastic melt temperature control technology

降低熔体温度，减少熔体下垂

Maintain lower melt temperatures in order to reduce melt sagging.

塑料熔体温控技术

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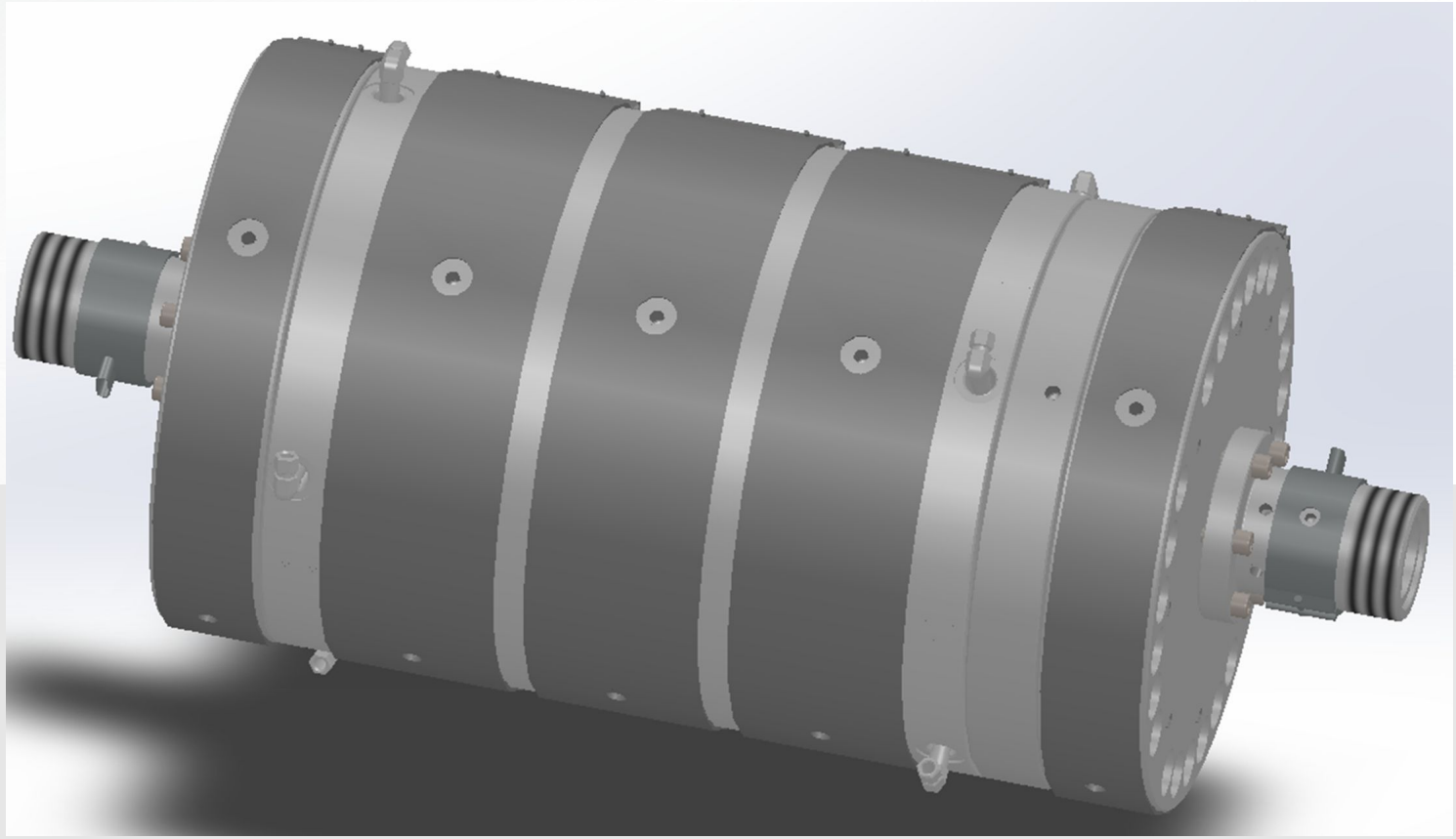
Lower melt temperatures to minimize melt sagging.



Melt cooler

- melt cooler adopt oil cooling
- material from extruder through melt cooler with 10~15 degree temp reducing
- reduce material sagging in die head

塑料熔体温控技术

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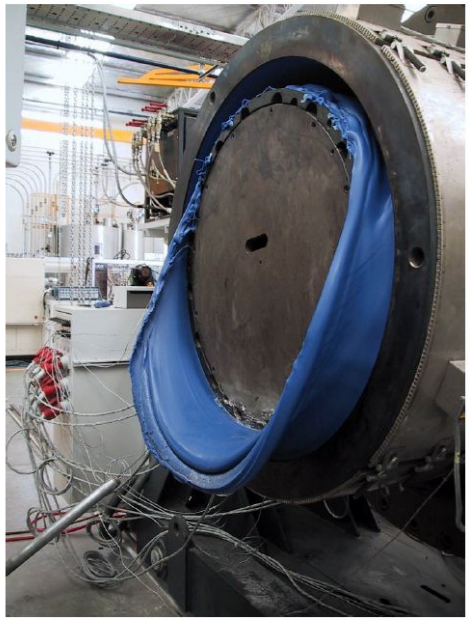
Lower melt temperatures to minimize melt sagging.

- Sagging is caused by gravity
- Sagging is a function of melt viscosity at low shear rate



管道模具技术
Pipe Head Technology

- 螺旋流加精密分流

Spiral flow with precision diverter.

- **多层压缩，均匀壁厚**

Multi-layer compression, uniform wall thickness.

- 中心定位设计，容易装拆模具

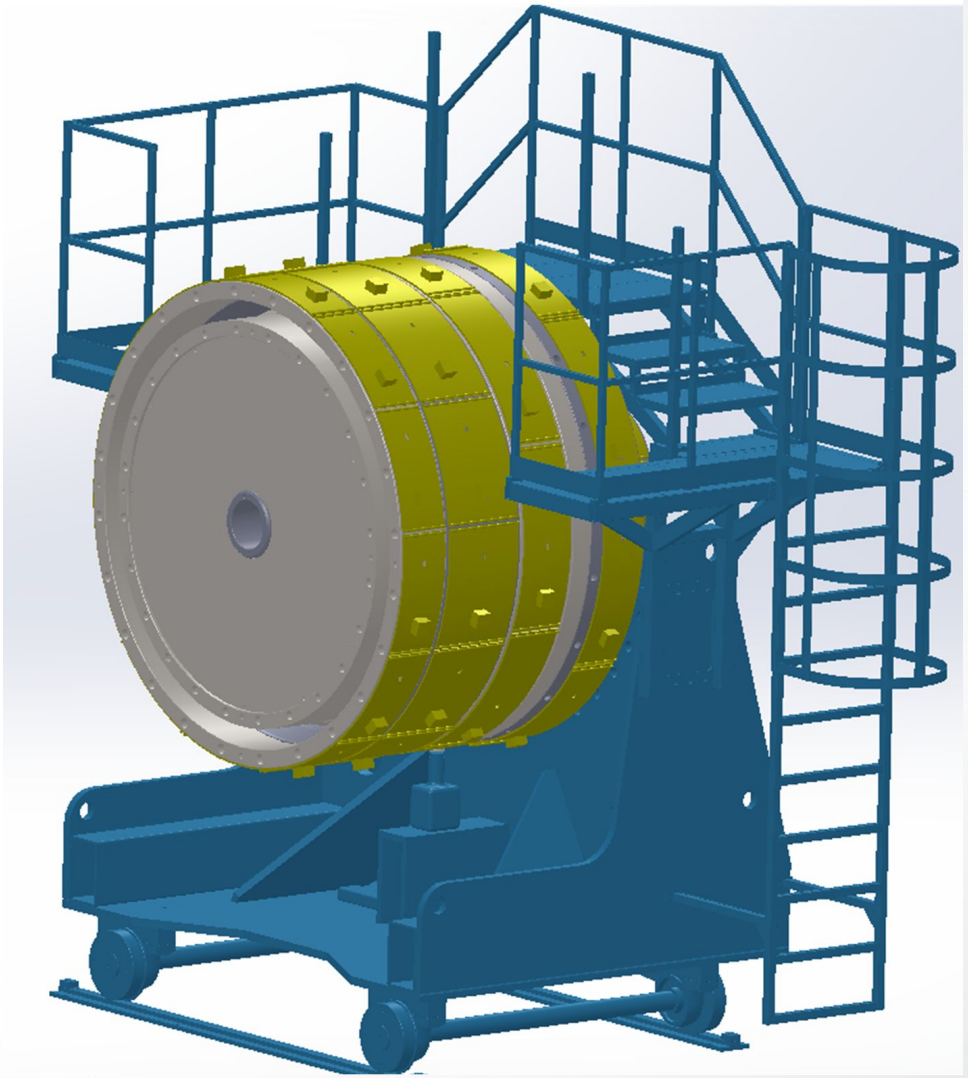
Center positioning design, easy to install and dismantle the mold.

- 圆周分区控温

Circumferential temperature control.

- 模具流道经CAE仿真流道分析，熔体分布更加均匀

Mould flow channel analyzed by CAE simulation flow channel, melt distribution is more uniform.



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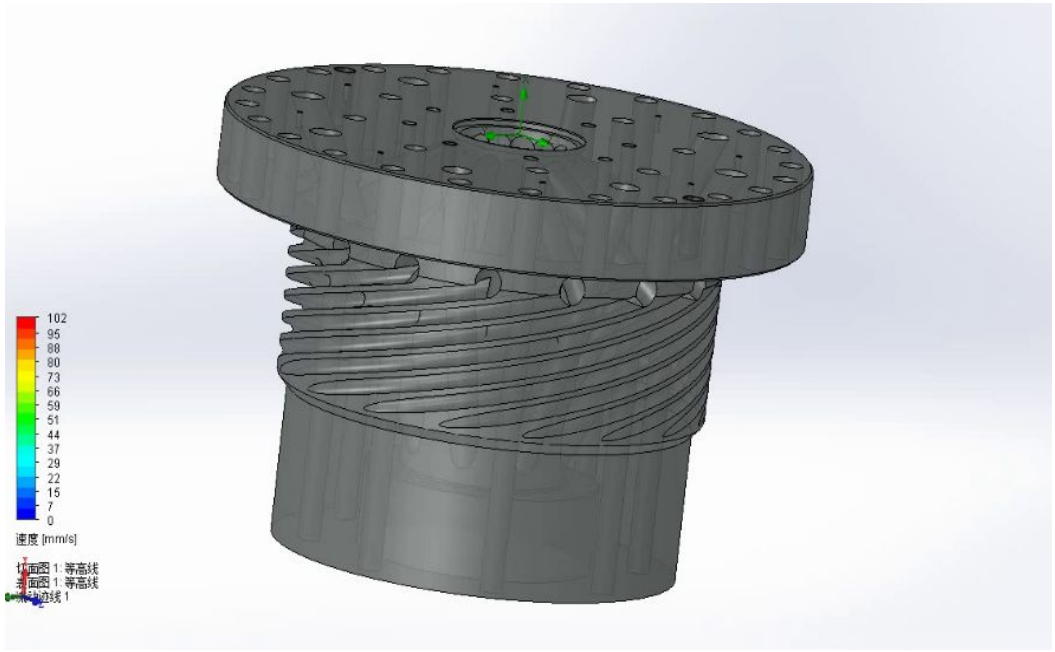
Pipe Head Technology



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multi compression, even thickness

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Circumferential temperature control zone

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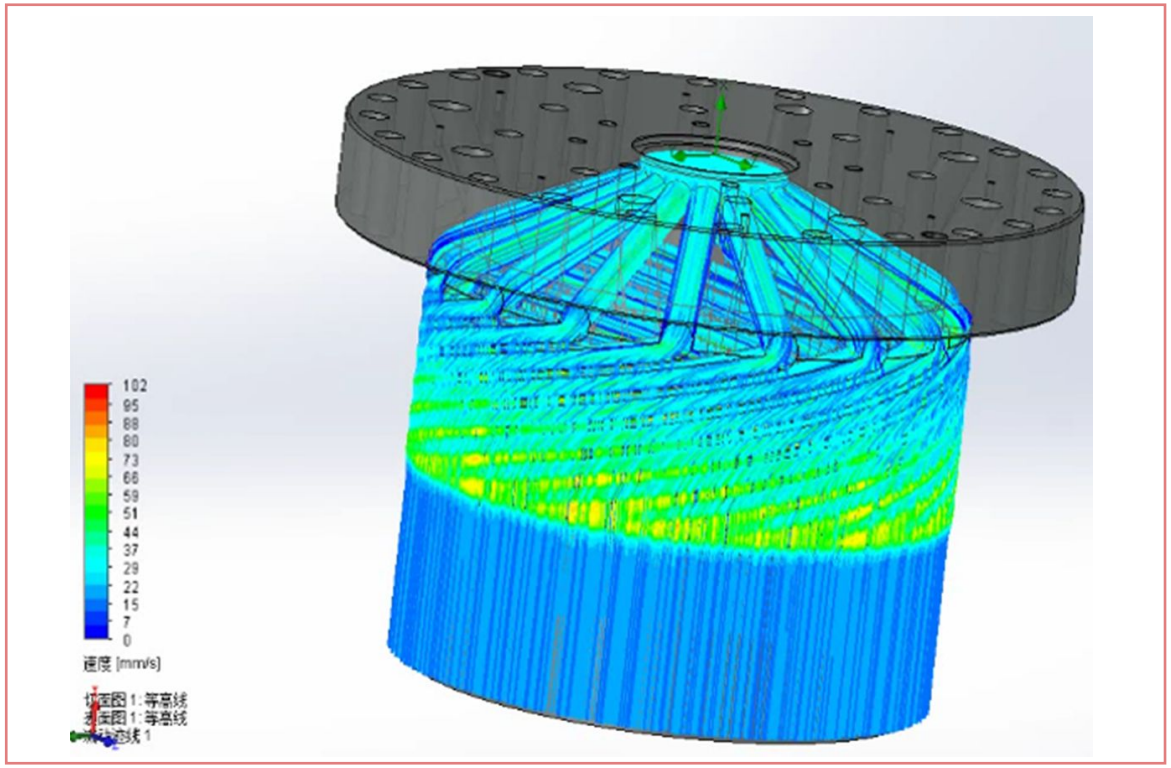

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Circumferential heating zone for temperature control.

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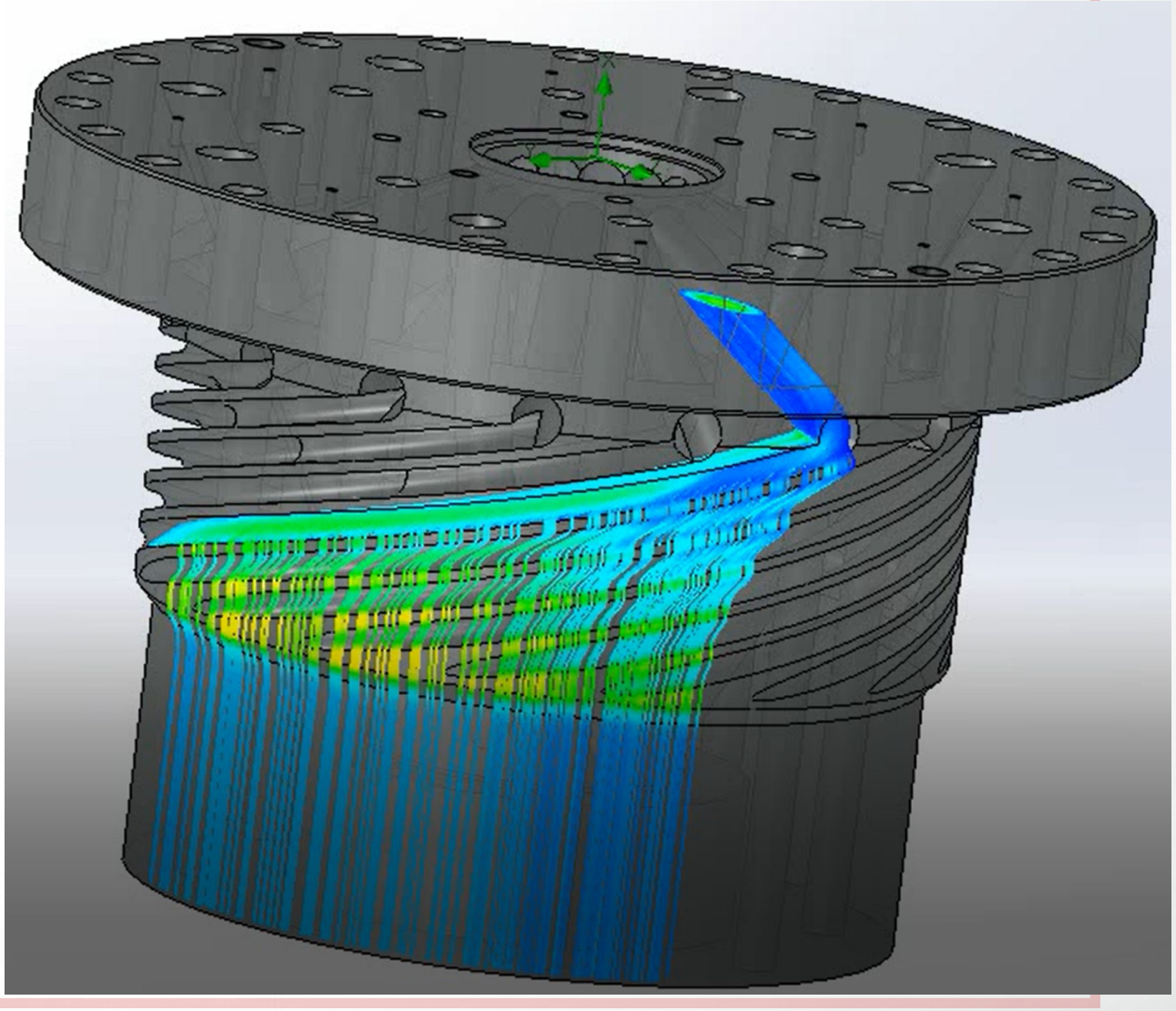

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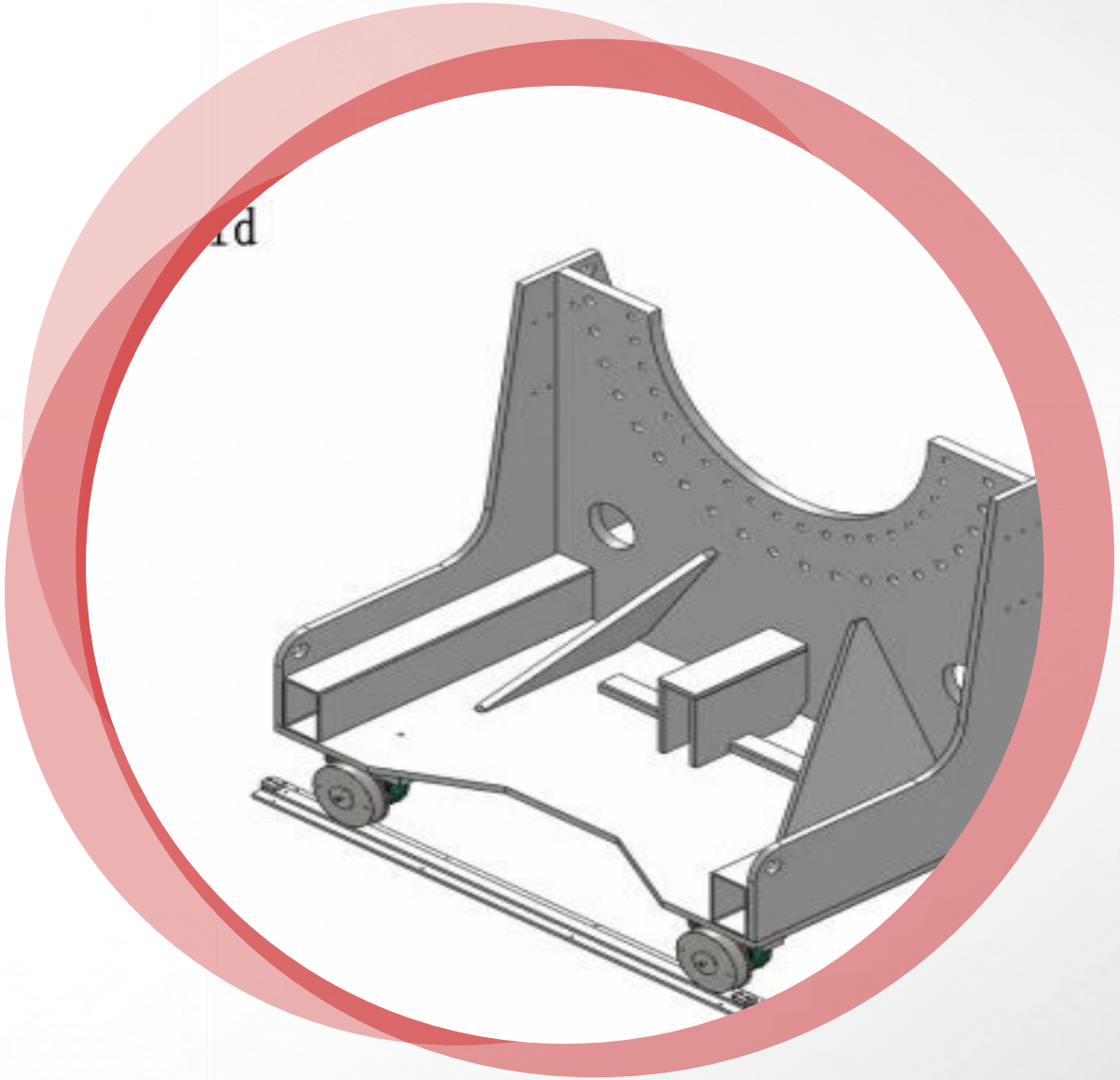

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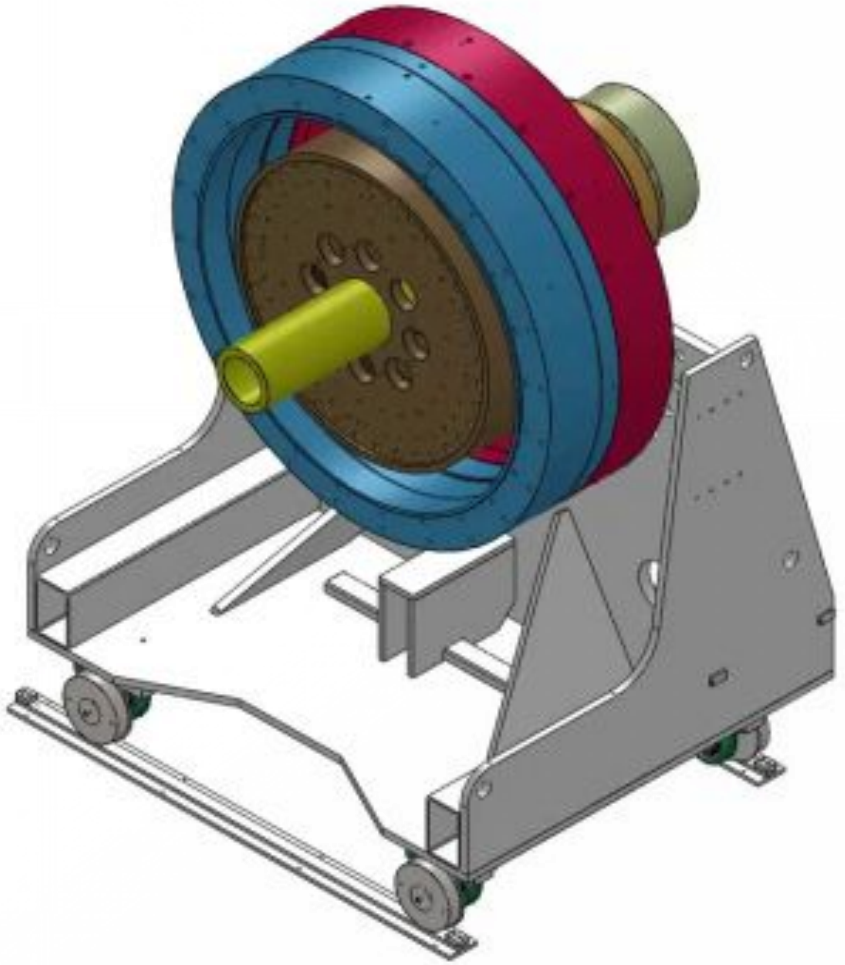

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管道真空冷却定型技术
Pipe vacuum forming&cooling technology

- 分区控制喷淋压力，确保管材圆周冷却

Zoned control of spray pressure ensures cooling around the circumference of the pipe.

- 大流量高压水泵

High flow high pressure water pump.

- 液压校圆装置

Hydraulic rounding forming device.

- 内部吊装滑轨

Internal tank with lifting slides.

- 分泵控制，备分功能

Split-pump control, backup function.

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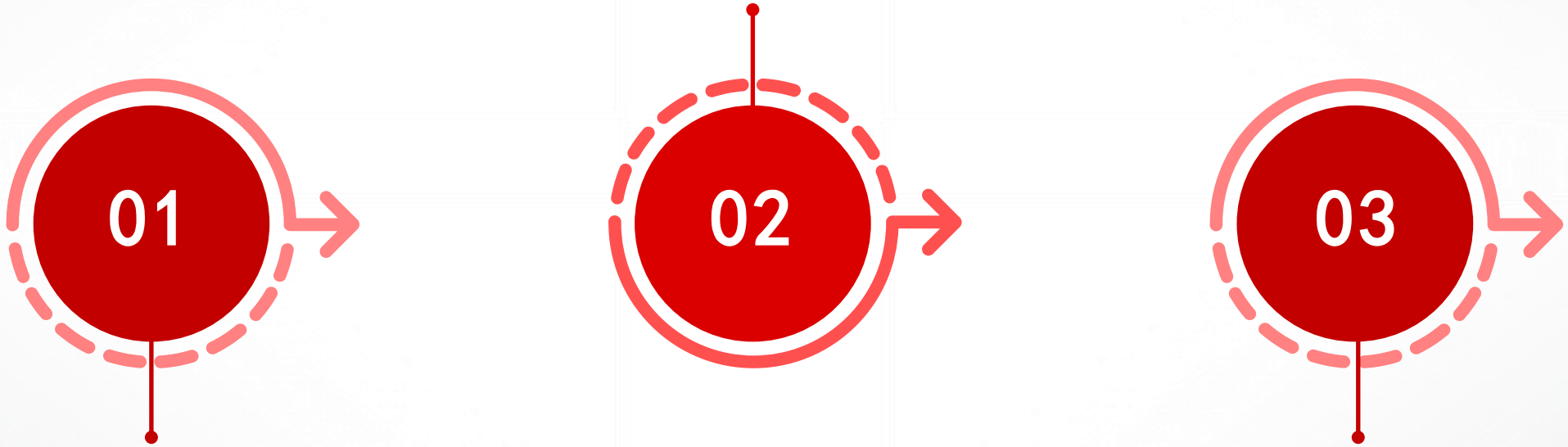
管道牵引机技术
Pipe Haul-off Technology

滑轨设计独特，防止链条脱抛.

slide adopt special design, preventing the chain from being thrown off.



分区伺服控制，防电机过载

Seperate zone servo control, anti-motor overload.

整体机构容易拆装，减少运输成本

whole body structure easy disamble and instllation, reduce freight cost

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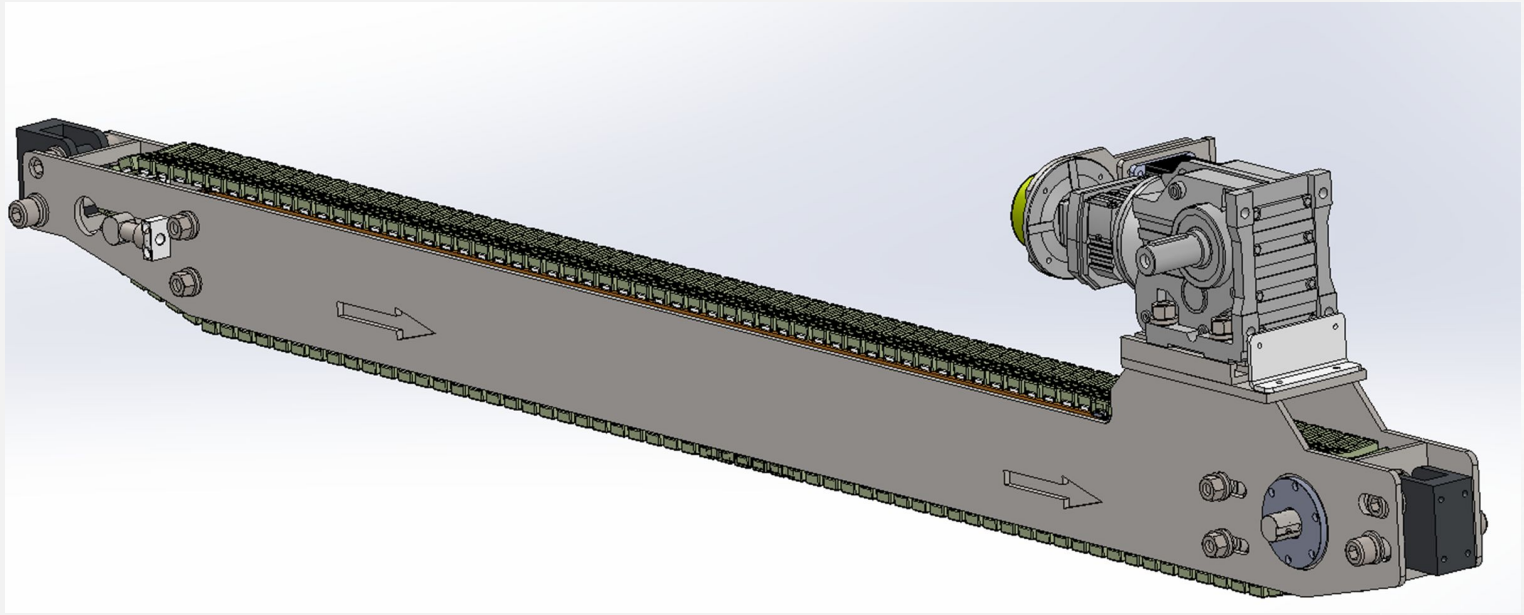
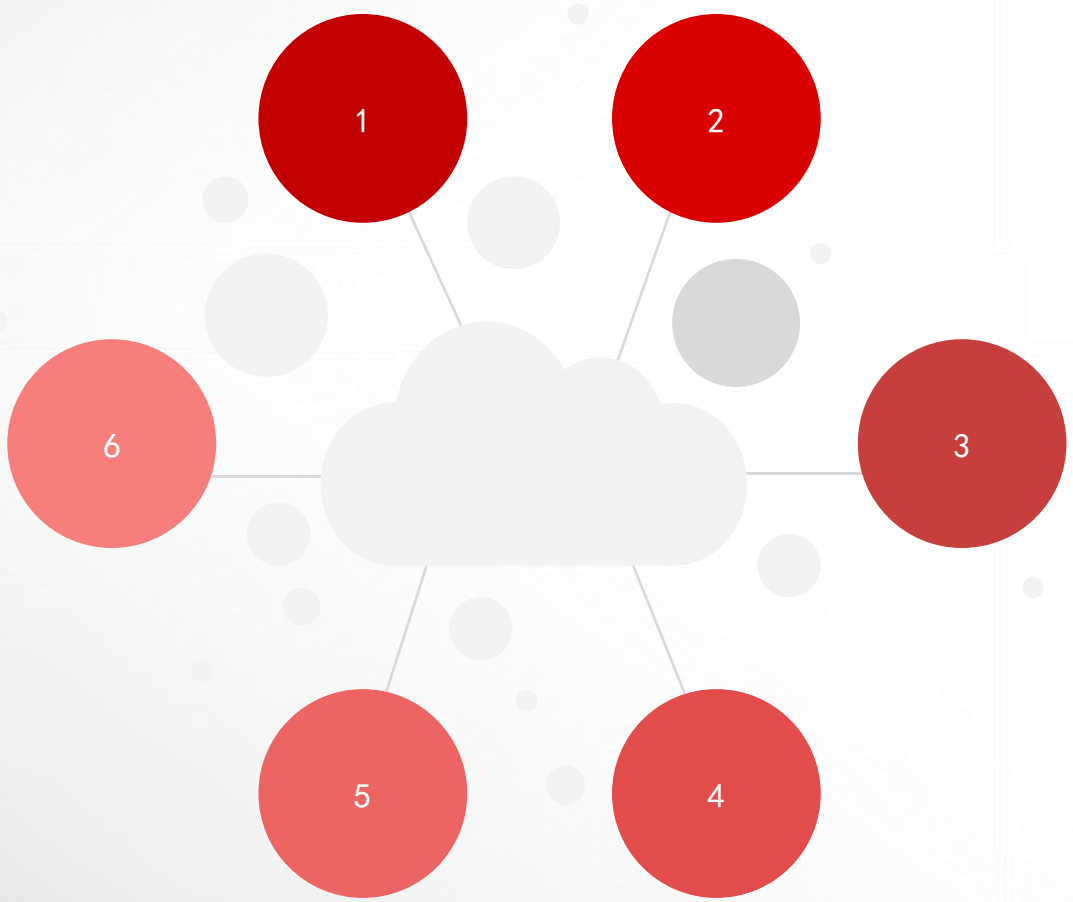


管道切割机技术
Pipe cutter technology



1. 数控化的操作方式
   Digitalized operation

2. 全自动调整托架和进刀位置
   Fully automatic adjustment of of support frame & blade feed position.

3. **进刀量及进刀速度直观的参数化设置**，克服液压控制凭经验的调刀方式Intuitive parameterized settings for feed volume and speed, overcoming the experiential tool adjustment method of hydraulic control

4. 转盘双轴承设计，强度更高
   Double bearing structure of rotarytable disc for higher strength.

5. 摆臂转轴双支座设计，改善了悬臂的缺点
   The double support design of the swing arm shaft improves the disadvantage of cantilever arm.

6. 伺服进刀，速度平稳可控，超扭矩自动退刀
   Servo feed, stable and controllable speed, automatic retraction of over-torque.

管道切割机技术
Pipe cutter technology

- 数控化的操作方式

Digitalized control operation

- 全自动调整托架和进刀位置

Fully automatic adjustment of of bracket and feed position.

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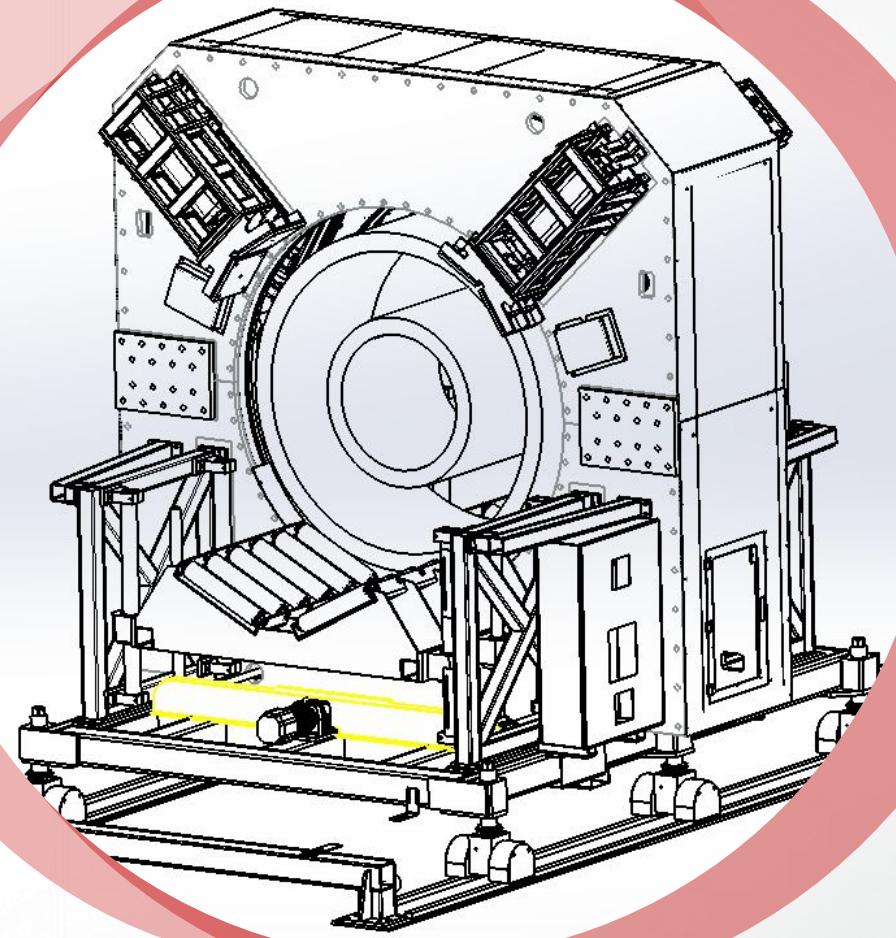

管道切割机技术
Pipe cutting machine technology

- 数控化的操作方式

Digitalized control operation

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20~2700MM HDPE Single & Multi layer Pipe Extrusion Lines
提供单层多层HDPE压力管道挤出生产线！