



THE PREFERRED CHOICE  
OF OVER 5500 OPERATING EXTRUDERS WORLDWIDE

[EPZ.STEERWORLD.COM](http://EPZ.STEERWORLD.COM)



# STEER - THE EPZ SPECIALISTS

## EXEMPLIFYING ENGINEERING EXCELLENCE

In the Extruder Processing Zone product portfolio, STEER's EPZ brand is aggressive with its patented screw elements and innovations in shafts and barrels.

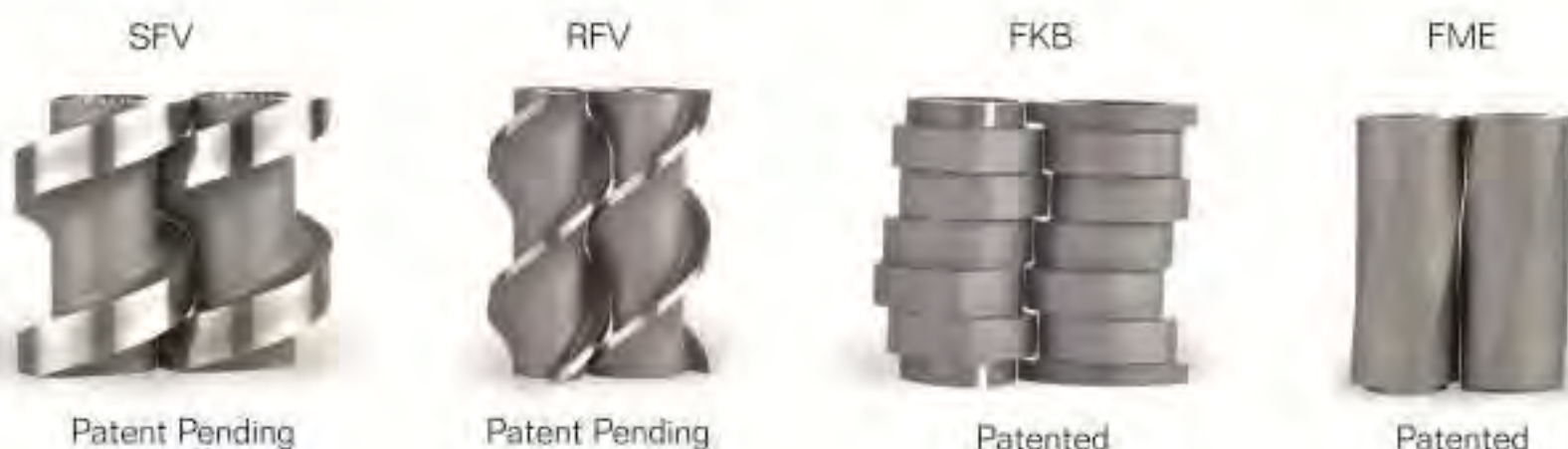
STEER has its own state-of-the-art foundry to manufacture specialty tool steels. This allows STEER complete traceability and control over the input material that goes into the components manufactured.



Higher Intake, Enhanced Mixing and Efficient Conveying are the three important activities that are performed inside the processing zone of a co-rotating twin-screw extruder. A good compound is the result of the right chemistry coupled with the right technology. It is all about doing the right kind of work which is always the result of optimally configured screw elements. When it comes to special applications and compounding of difficult materials what comes to rescue are STEER's Special Elements.

Fractional lobe Kneading Block (FKB), Single Flight Shovel Element (SFV), Regular Flight Shovel Element (RFV) and Fractional Mixing Element (FME) are examples of the many Special Elements that have been innovated by STEER

The snow plough with a shovel comes to the rescue of co-rotating twin-screw extruder applications. The STEER SFV Screw Elements are capable of achieving intake capacity of over 300 per cent (in STRAVE FEED) compared to normal screw elements. Certain applications especially powder feeding requirements are greatly benefitted by this breakthrough.





# STEER - THE GLOBAL CHOICE FOR EPZ COMPONENTS

The Extruder Processing Zone (EPZ) is the 'heart' of a Co-rotating Twin-Screw Extruder that helps to achieve the desired performance.

Scaling new heights: STEER EPZ is now a global choice for Extruder Processing Zone parts, Twin-Screw Elements, Shafts, Barrels and Liners. With a capacity to make over 50,000 screw elements annually, STEER has supplied over 180,000 TSE Elements of 9000+ different types in about 460 different sizes of TSEs to more than 400 plants worldwide.



STEER's EPZ products are well accepted by its customers for their twin-screw extruder machines which comprise several well known global extruder brands. STEER serves over 15% of the world market with EPZ parts through its global network and customised services. STEER supplies its range of EPZ products to customers in countries like Japan, Korea, Thailand, USA, Italy, Spain, UK, France, Malaysia, Singapore, Mexico, Scotland, Holland, Brazil, Nepal, Pakistan, Saudi Arabia, Germany, China, UAE, Israel, Turkey and India.

**EPZ services:** STEER provides a host of EPZ services for all makes of co-rotating twin screw extruders. These services include element configuration, barrel relining, shaft testing, element replacement, barrel measurement and safety adaptors for shafts. [see: [epz.steerworld.com/services.php](http://epz.steerworld.com/services.php)]

For more information and order enquiries, visit: [EPZ.STEERWORLD.COM](http://EPZ.STEERWORLD.COM)



# No.1

## AT THE HEART OF A CO-ROTATING TWIN SCREW EXTRUDER

STEER serves over 15% of the world market with EPZ parts, through its global network and customised services.

Scaling new heights, STEER EPZ is now a global choice for Extruder Processing Zone parts; Twin-Screw Elements, Shafts, Barrels and Liners. With a capacity to make over 50,000 screw elements annually, STEER has supplied over 180,000 TSE Elements of 9000+ different types of about 460 different sizes of TSEs to over 400 plants worldwide. Exemplifying engineering excellence, STEER has pioneered special elements like FKB, SFV, RFV and FME, all of which have gained much popularity in the industry.

Manufactured using special grades of tool-steel with high wear and corrosion resistance for the processing section, the alloy is developed at STEER's state-of-the-art foundry. An advanced Computer Aided Design and CNC aided facility completes the manufacturing process of these next generation elements designed to achieve the desired performance.



STEER IS THE GLOBAL CHOICE FOR EXTRUDER PROCESSING ZONE (EPZ\*) COMPONENTS

\*Twin-screw Elements, Shafts and Barrels



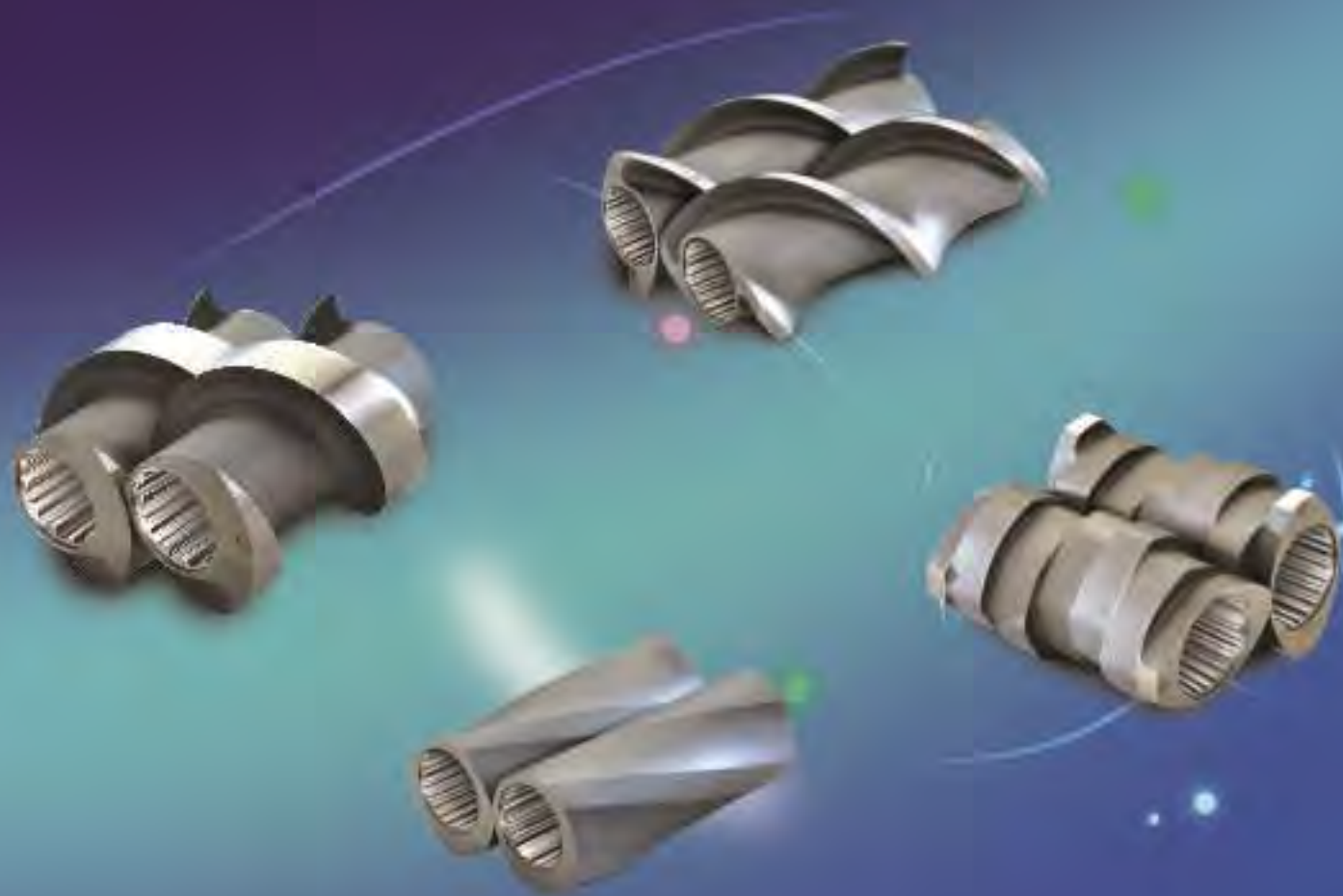
## EPZ SCREW ELEMENTS SPECIAL ELEMENTS

SFV - FME - FKB - RFV

When it comes to special applications and difficult materials the STEER SPECIAL SCREW ELEMENTS RFV, SFV, FME and FKB are the most preferred choices. The difference is in technology to achieve reduced shearing and enhanced mixing.

**Higher Intake, Enhanced Mixing, Efficient Conveying.** A good compound is the result of the right chemistry coupled with the right technology. It is all about putting the right kind of work, always a result of optimally configured screw elements. When it comes to unique applications and compounding of difficult applications what comes to the rescue are the STEER's Special Elements.

**Regular Flight Shovel Element (RFV)\*\***, **Single Flight Shovel Element (SFV)\*\***, **Fractional Mixing Element (FME)\*** and **Fractional Lobe Kneading Block (FKB)\*** are examples of the many Special Elements that are innovated by STEER.





## SHOVEL ELEMENTS **STEER SFV ELEMENTS**

The **SNOW PLOUGH** comes to the rescue of co-rotating twin-screw extruder application. The STEER SFV Screw Elements are capable of achieving intake capacity of over 300 per cent (in STARVE FEED) compared to normal screw elements. Certain applications especially powder feeding requirements are greatly benefited by this breakthrough.

**THE SHOVEL ELEMENTS (SFV Screw Elements)** are an integral part of some of STEER's Generation Next Co-rotating Twin-Screw Extruder brands



STEER IS THE GLOBAL CHOICE FOR EXTRUDER PROCESSING ZONE (EPZ\*) COMPONENTS

\*Twin-screw Elements, Shafts and Barrels



## STEER EXTRUDER **BARRELS & SHAFTS**

STEER manufactures different types of Barrels namely **Intake Barrels, Side Feeder, Vented Barrels, Combi Barrels and Closed Barrels** (round or square). STEER's sophisticated foundry and expertise provides the assurance that the right metallurgy is in place to make Barrels and Liners. STEER constantly innovates and has introduced a **'Novel Technology with a Jiffy Clamp'** for Special Extruders. STEER also provides Barrels Relining Services and on-site Barrel Measurement Services.

STEER makes exclusive shafts of any profile and geometry for all brands of Twin-Screw Extruders. **Superior metallurgy with full fledged in-house heat treatment** makes STEER Shafts a perfect choice. STEER also provides services to test the shafts of any make.



# FME ELEMENTS



Fractional Mixing Element (FME) for achieving  
**more efficient mixing**



## FKB ELEMENTS



Fractional lobe Kneading Block (FKB) for achieving  
**enhanced melting**



# RFV ELEMENTS



Regular Flight Shovel Element (RFV) for achieving  
**higher intake**



## BILOBE ELEMENTS



These elements are a preferred choice in next generation extruders, as it offers **higher free volume**



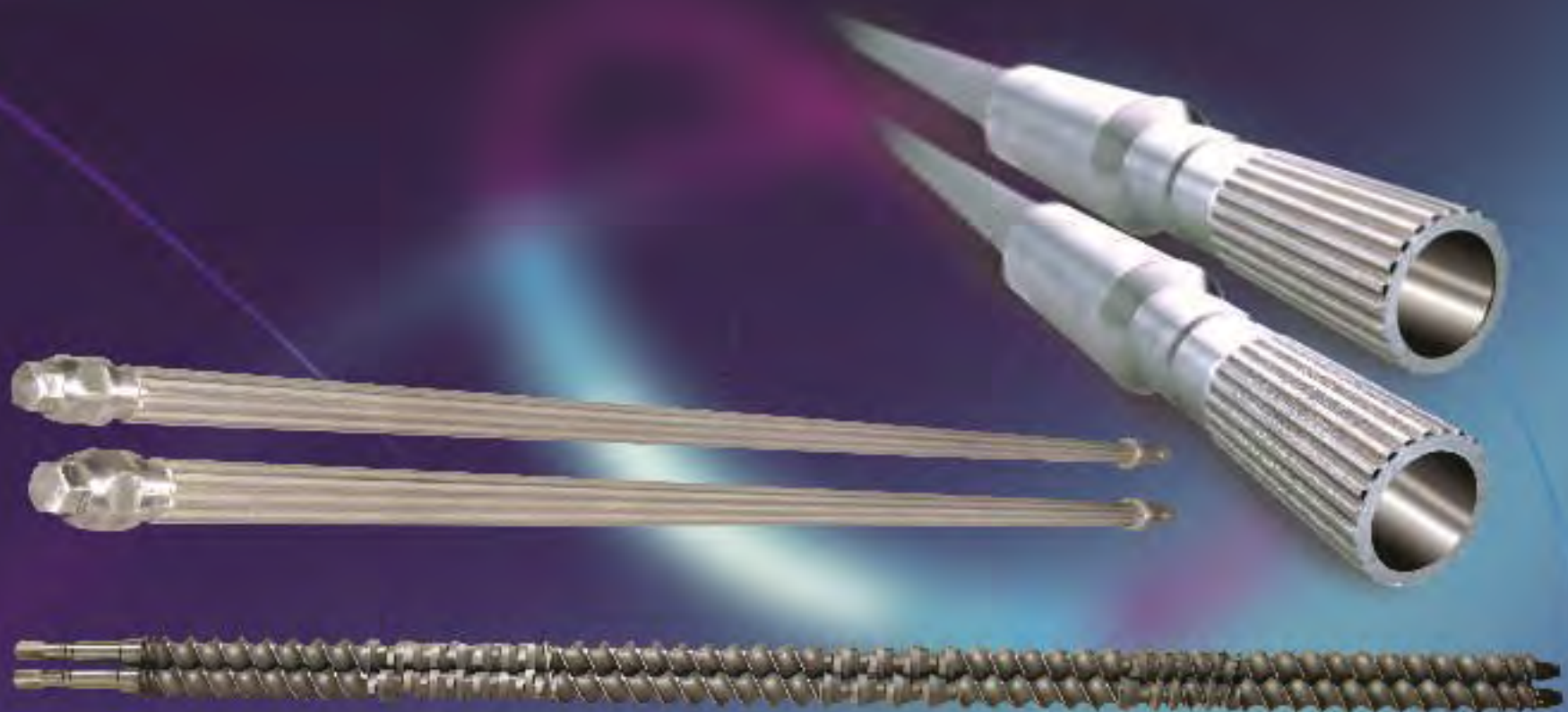
## TRILOBE ELEMENTS



These are popular elements, generally used for  
**normal free volume requirements**



# SHAFTS



STEER manufactures ULTRA HIGH TORQUE (UHT) shafts of required profile and geometry for all makes of Twin-Screw Extruders.

STEER BREAKAWAY ADAPTER with a V-Notch, is designed to give additional protection.





## BARRELS



STEER manufactures different type of barrels - Intake barrels, Side feeder barrels, Vented barrels, Combi barrels and Closed barrels.

**Constant innovation is the key**



# INTAKE ZONE ELEMENTS



Single Flight Shovel Elements



Single Flight Elements



Forward Screw Elements



Schubkanten Elements

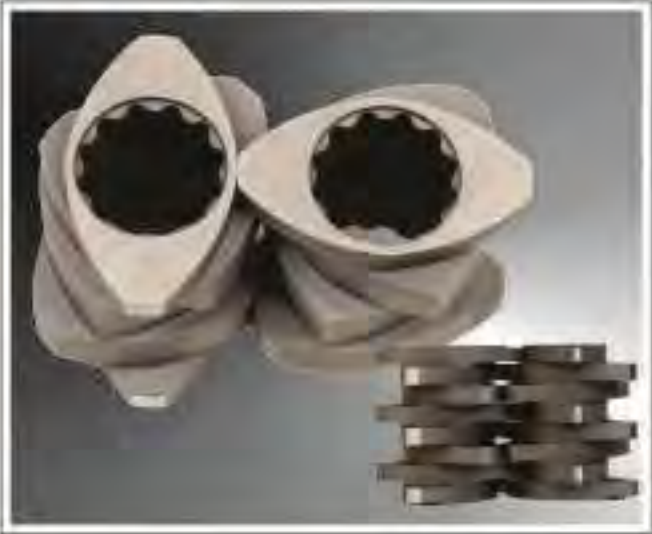


Single Flight SK Elements



Deep (Double) Flight SK Elements

# MELTING ZONE ELEMENTS



Fractional Kneading Element



Forward Kneading Element



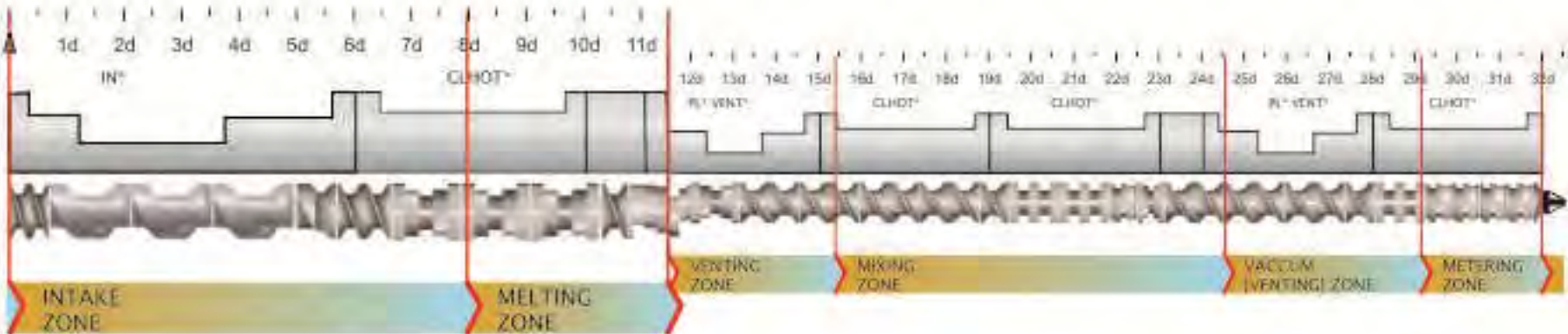
Reverse Kneading Element



3KB Kneading Elements



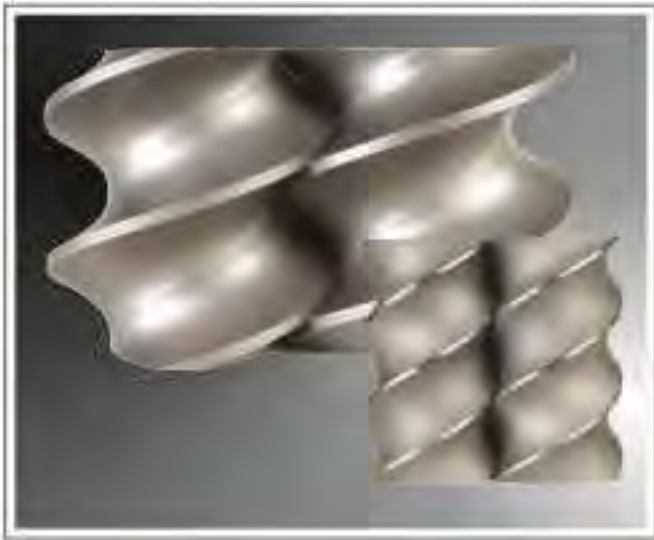
Neutral Kneading Elements







# VENTING ZONE ELEMENTS



Screw Elements

# MIXING ZONE ELEMENTS



Fractional Kneading Elements



Forward Kneading Elements



Reverse Kneading Elements



Neutral Kneading Elements



3KB Kneading Elements



Screw Mixing Elements



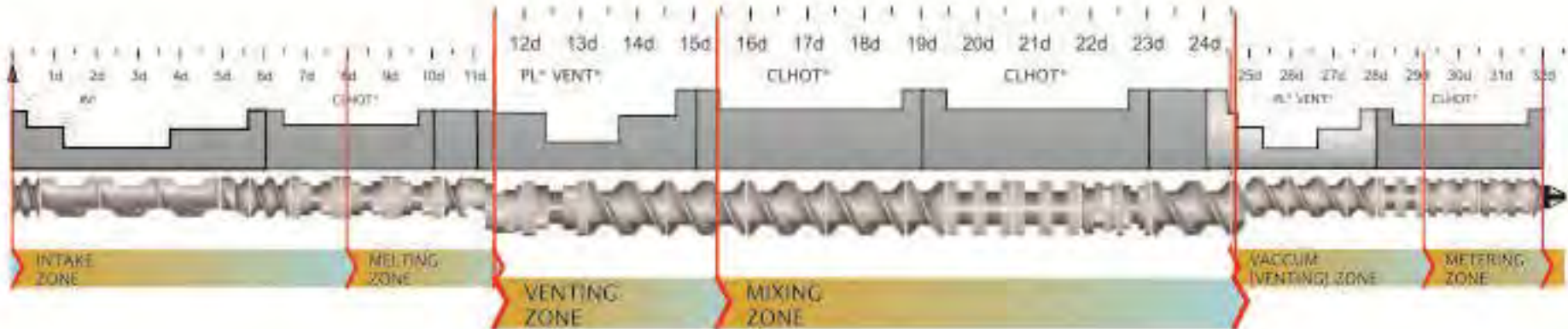
Special Tooth Mixing Elements



Continuous Mixing Elements



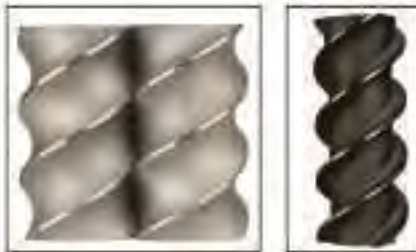
Fractional Mixing Elements







# VACUUM ZONE ELEMENTS

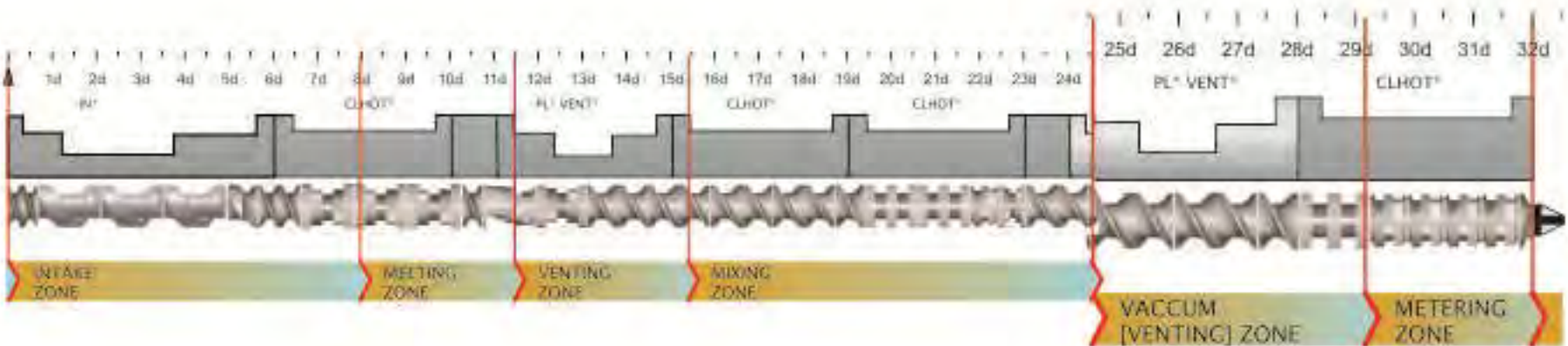


Venting Screws

# METERING ZONE ELEMENTS



Forward Screw Elements







# STEER EPZ SERVICES

Apart from pioneering and producing various products for the Extruder Processing Zone (EPZ) in a co-rotating twin-screw extruder; STEER provides quality service in the following areas:

1. Screw Element Configuration (Consulting Services)
2. Screw Elements Replacements
3. Barrel Relining Services
4. Barrel Measurement Activities
5. Safety Adaptor for Shafts
6. Shaft Testing Services



## Element Configuration

STEER provides consultation for the configuration of elements required in various applications. The expertise of STEER comes from the wide range of experience in different applications running and the R & D work at the Applications Development Center (ADC) in STEER.



## Barrel Relining

STEER undertakes the complete task of refurbishing Barrels and Liners to give the extruders an extended life. The manufacturing is based on the Twin-Screw configuration and applications as desired by its customers.



## Shaft Testing

STEER provides services to test the shafts of any make. A comprehensive check ensures that the shaft used in the extruder is ready to handle the required amount of torque, thereby ensuring optimal usage.



## Safety adaptor for shaft of other machines

The safety adaptor provided by STEER ensures that your shaft remains immune to the torque imbalances at the time of extruder start-up and stoppages.



## Elements Replacements

STEER provides a wide array of EPZ elements, custom built to suit any extruder and any application.



## Barrel Measurement

STEER provides on-site barrel measurement services.





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