

NETZSCH Pumps & Systems – Solutions you can trust ■

## NETZSCH Pumps North America – Technical Support

Distributor Pump School Training  
Distributor Sales and Marketing Meeting

John Maguire

NETZSCH Pumps North America “ Pump School “ Trainings are designed to educate our Distributors and Representatives Sales Teams .

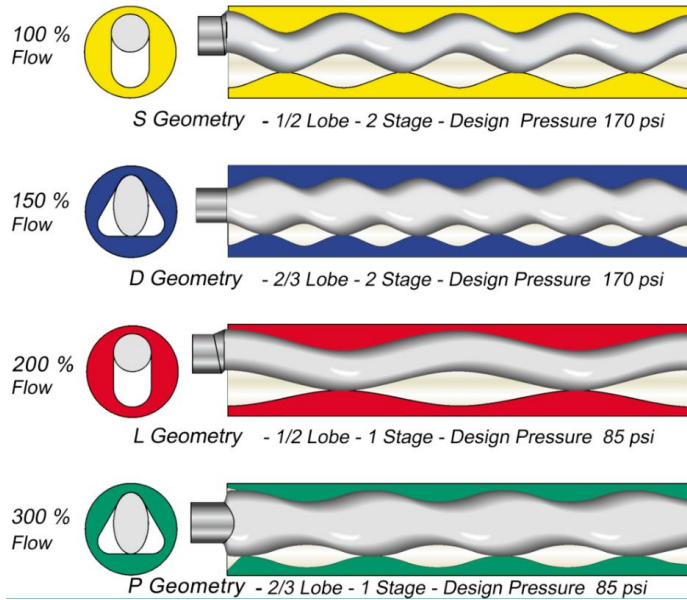
This training will enable these individuals who participate, more knowledge regarding NETZSCH Products, and provide them with additional tools to enable their success.

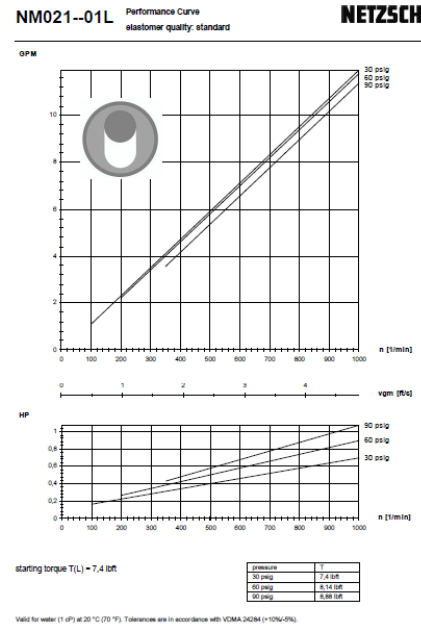
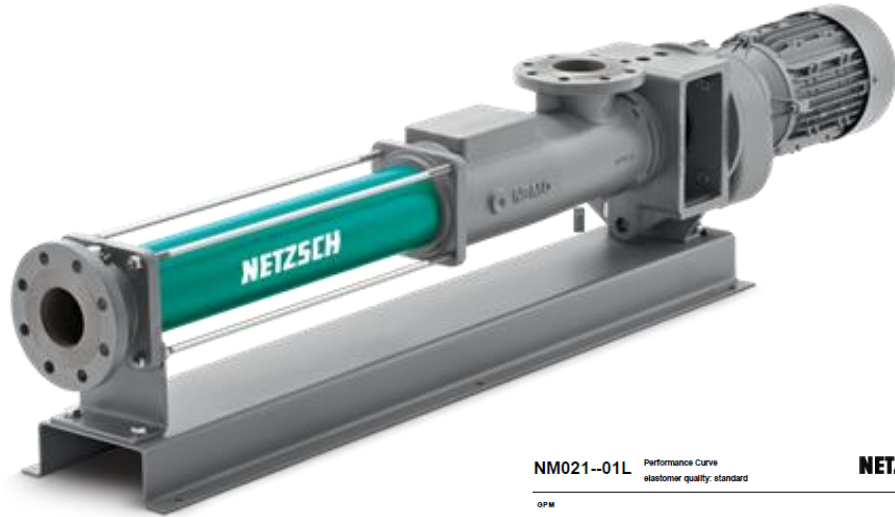


- Company Structure and History of NETZSCH
- Introduction of the Inside Sales Team
- NETZSCH Company / Factory Tour



- Pump Types
- Stator & Rotor Geometries
- Shaft Sealing Options
- FSIP NEMO Pump
- iFD 2.0 Stator Technology





- Materials of Construction
- Performance Curves
- Overview of the Sizing and Selection process for NEMO Pumps
- Drives and Configuration Options
- Accessories for NEMO Pumps
- Competition analysis



- T1 TORNADO – Features and Benefits
- T2 TORNADO – Features and Benefits
- Principals of Operation TORNADO Pumps
- Overview of the Sizing and Selection process for TORNADO Pumps
- Advantages and Limitations



- Competition Analysis
- Accessories
- Performance Curve Characteristics
- Pump Configurations





- Rebuild for Standard NEMO Pump
- Rebuild for New FSIP NEMO Pump
- Various Universal Joints ( Pin and Gear )
- Shaft Sealing ( Mechanical Seals / Packed Stuffing Box )





- T1 TORNADO Pump Wet End Rebuild
- T2 TORNADO Pump Wet End Rebuild
- Mechanical Seals – TORNADO ( T1 & T2 )



- Running Operation of a NEMO Pump
- Pressure Capabilities
- Demonstration of Pump Cavitation
- Over Pressure Demonstration
- Dry Running Fundamentals

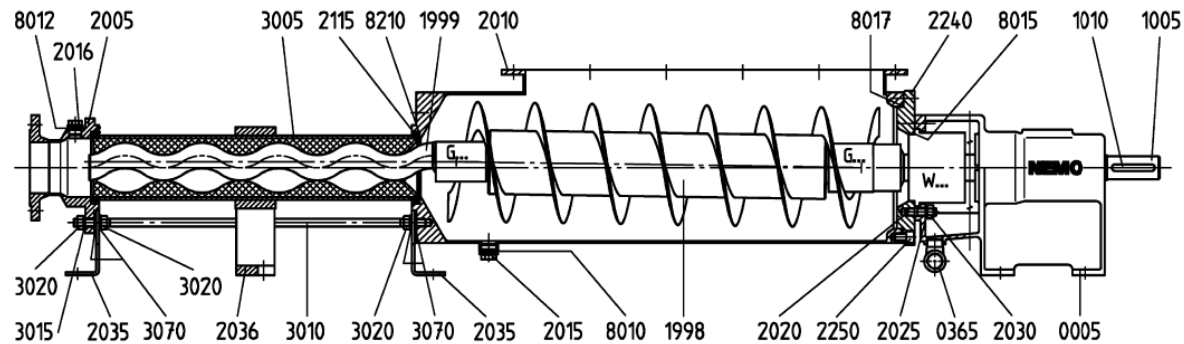
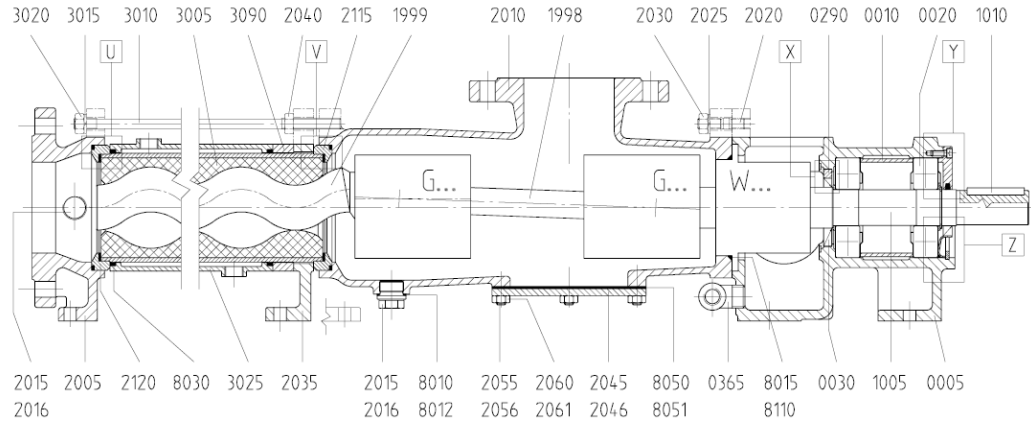
NETZSCH Pumps & Systems – Solutions you can trust ■

# NETZSCH Pumps North America – Technical Support

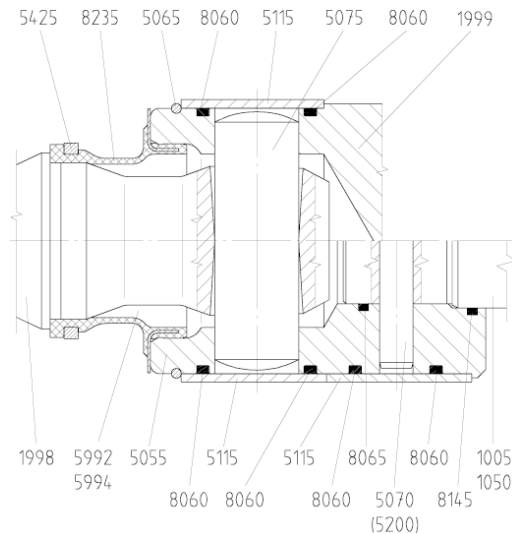
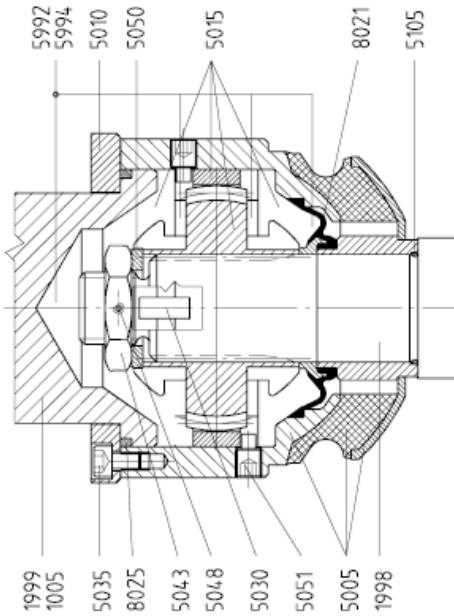
Service School Training  
Distributor Sales and Marketing Meeting  
John Maguire

NETZSCH Pumps North America “ Pump Service“ Trainings are designed to educate our Distributors and Representatives in house Mechanics, and Field Service personnel.

This training will enable these individuals who participate, more knowledge regarding NETZSCH Products, service methodology for all NETZSCH Products, and a better understanding of NETZSCH Service Documentation and resources available.

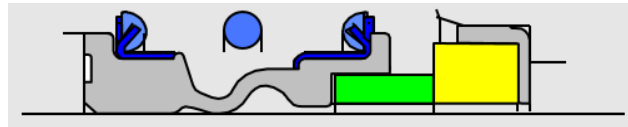
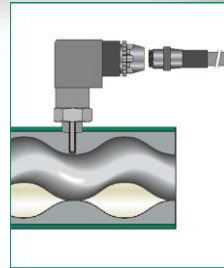


- NE Series Pumps
- NM BY & SY Pumps
- NM BO Pumps
- NMSF Pumps
- NMBH Pumps

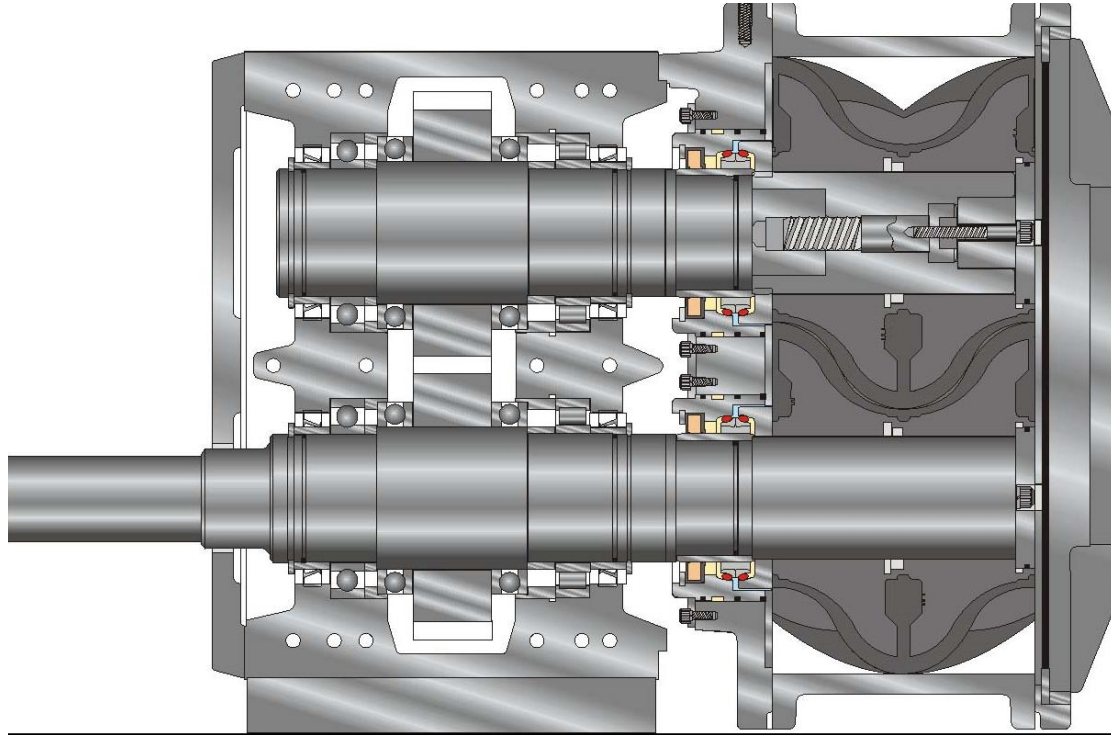


- Pin Type Universal Joints
- Gear Type Joint
- Z Type Universal Joints
- H Type Joints
- Flexible Rod Pumps

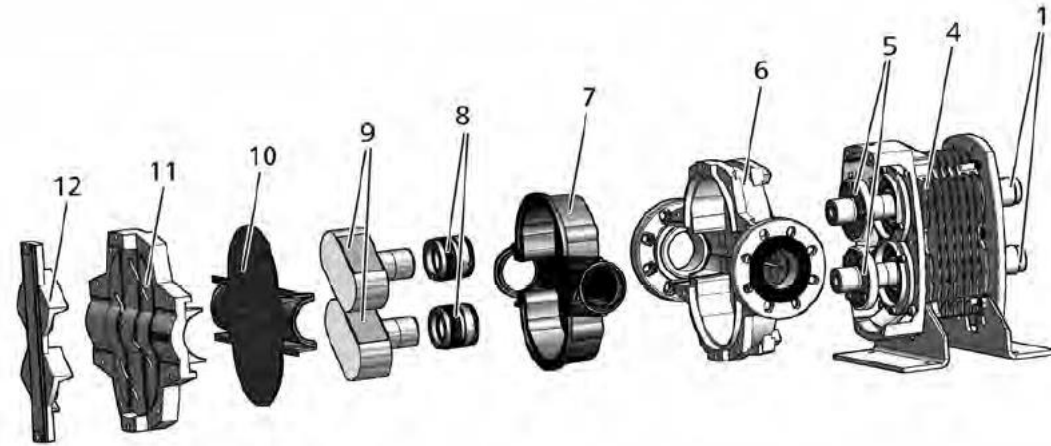




- Standard Single Mechanical Seals
- Packing and Lip Seals
- NE vs. NM Bearing Assemblies
- Dry Run Protection



- Lobe Replacement
- Housing Halves / Wear Plates Service
- Mechanical Seal Removal / Assembly
- Timing Gear Rebuild



- Lobe Replacement
- Liner Removal & Installation
- Mechanical Seal Replacement
- Timing the Lobes
- Proper Belt Tensioning

		Mechanical Seal, Table of Materials Material Designations acc. To DIN EN 12756 (and ASTM)					
		Places 1 and 2		Place 3	Place 4 / 5		
T	Tornado	B	Carbon	P	NBR	F	CrNi-steel
A	Agri	Q1	Silicone Carbide sintered	E	EPDM	G	Stainless steel
E	Environmental	Q2	Reaction bonded Silicon Carbide	V	FKM	T	Plastic
I	Industrial	U2	Tungsten Carbide nickel bonded	K	FFKM	D	Hardened steel
Q	Quench	D	Hardened steel	X	user defined elastomers		
S	Single			M	FKM or MVQ-FEP coated		
D	Double						
DK	Double Knife-edge faces						

	Seal Face Material Combinations					
Properties	D/D	Q1/Q1	U2/U2	Q1/B	U2/B	Q1/U2
Chemical resistance	+	++++	+++	++++	+++	+++
Abrasive resistance	+++	++++	++++	+	+	++++
Impact resistance	++++	++	++++	+	+	++
Thermal shock	++++	++	++++	+++	+++	+++
Heat generation	+	++	+	++++	+++	+++
Boundary lubrication	+	++	+	++++	+++	++
Viscous products (>5000mPas)	+	++++	++++	+	+	++++



- Running Operation of a NEMO Pump
- Pressure Capabilities
- Demonstration of Pump Cavitation
- Over Pressure Demonstration
- Dry Running Fundamentals