



# Summary of capabilities

## Bend, Oregon, USA

### Overview

The campus consists of three main buildings: one dedicated to cGMP manufacturing, another for warehousing, receiving, shipping, and QC laboratory services, and a third focused on R&D analytical and manufacturing activities.

### Facility facts

**Workforce:** ~100

**Contact info:** 62925 NE 18th Street  
Bend, OR 97701, USA

### Capabilities

- **Expertise in spray drying and hot melt extrusion (HME)** for creating amorphous solid dispersions, as well as conventional oral solid dosage (OSD) formulations
- **Expertise in preclinical development**, scale-up, and technology transfer
- **cGMP manufacturing services** for Phase I and Phase II clinical trials

### Unique offering

- Early development center of excellence specializing in advanced drug delivery. Offering spray drying/HME and OSD manufacturing from preclinical formulation through Phase II clinical trial materials.
- A key hub for our Engineered Solutions team, dedicated to in silico modeling, including AI and machine learning, to enhance solubility and bioavailability.

### Formulation and manufacturing capabilities

Formulation and process	Analytical	Quality and compliance
Spray drying	Method development and validation	Regulatory submissions
Hot melt extrusion (HME)	Raw materials	CQAs
Micronization	In-process testing	CPPs
Roller compaction	Equipment cleaning verification	21 CFR part 210/211 compliant
Milling and blending	Finished product testing	
Tableting and compaction simulation	ICH and ASAPrime® software	
Encapsulation		
Coating		
Packaging and labeling (non-blinded)		

## Bend analytical equipment

	Equipment (features/scale)	Analytical R&D	cGMP QC
Gas chromatography	Agilent 7890B and autosampler		•
	6890 Series and autosampler (multiple)	•	•
High-performance liquid chromatography (HPLC)	Agilent 1290 UHPLC		•
	Agilent 1100, 1200, 1220, 1260 HPLC	•	•
	Thermo Scientific™ Vanquish™ Flex UHPLC (DAD and CAD)	•	•
Scanning electron microscope (SEM)	Phenom XL SEM	•	
Particle size analysis	Malvern Mastersizer 3000	•	
UV/Vis spectroscopy	SpectraMax Plus 384 absorbance microplate reader	•	
Dissolution (both)	Distek Evolution 6300		•
	Distek 2100 dissolution system	•	•
	PION MicroDISS profiler	•	
Total organic carbon analyzer	Shimadzu On-Line TOC-VCSH		•
Fourier transform infrared spectroscopy (FTIR)	TS Nicolet iS10 FTIR		•
Differential scanning calorimetry (MDSC)	TA Instruments DSC Q2000		•
	TA Instruments Discover DSC 2500	•	
X-ray powder diffraction (XRPD)	Rigaku MiniFlex 6G	•	•
	Bruker D2 Phaser	•	
Karl Fischer (KF) titration	v20 Volumetric KF titrator		•
	831 KF Coulometer and 702 Ti Stand and 874 oven sample processor		•
Miscellaneous	Dr Schleuniger Pharmatron JV1000, Erweka SVM 121 bulk/tap density testers	•	
	Varian VK 100 disintegration tester	•	
	Dr Schleuniger Pharmatron DT2-IS disintegration tester		•
	Dr Schleuniger Pharmatron friability tester, Erweka TA friability testers	•	
	Dr Schleuniger Pharmatron tablet hardness tester	•	
	Freeman FT4 Powder Rheometer	•	
	Micromeritics GeoPyc 1360 envelope density tester	•	
	Micromeritics AccuPyc II true density tester	•	
	Zeiss polarized light microscope (PLM)	•	
	Stability chambers (VWR, Caron, Hotpack, Vindon)	•	•
Dynamic Vapor Sorption (DVS) — TA instruments VTI-SA+	•		

## Bend manufacturing equipment

	Equipment (features/scale)	Powders/ granules	Capsules	Tablets
Spray drying	SPX Anhydro MicraSpray MS-150 (multiple)	•		
	Buchi B-290 (multiple)	•		
	GEA/Niro mobile minor	•		
Hot melt extrusion	HAAKE MiniCTW micro-conical twin-screw compounder	•		
	Thermo Scientific™ Pharma 11 twin-screw extruder	•		
Secondary drying	Despatch tray dryer 14 cu. ft.	•		
	Binder VDL-115 with 115-liter vacuum tray drying chamber	•		
	Ekato VPT100 conical vacuum dryer	•		
Blending	GlobePharma MaxiBlend 1-2-3 with 2qt, 8qt, 16qt, 2cu-ft bins; 3 cu. ft. V-shell	•	•	•
	Patterson-Kelley (PK) 4 qt V-Blender	•	•	•
	Vanguard V-10 10 cu ft V-Blender	•	•	•
	Bohle LM40 Blender with 5L, 10L, 40L shells	•	•	•
	Bohle PTM300 Blender with 50L, 100L, 200L, 300L shells	•	•	•
Roller compaction	Gerteis Mini-Pactor®	•	•	•
	Vector TFC lab-micro roll compactor (multiple)	•	•	•
	Freund Vector TFC-220 Roll Compactor	•	•	•
Granulation/milling	Vector GMX-lab micro-high shear mixer	•	•	•
	Gerteis manual granulator	•	•	•
	Vector VFC-lab micro-fluid bed	•	•	•
	Quadro 197 Comil (multiple)	•	•	•
	Quadro U5 Comil	•	•	•
	Fitzmill SLS L1A	•	•	•
Tableting	Natoli single punch tablet press (NP-RD10A, multiple)			•
	MedelPharm STYL'One Nano instrumented single punch tablet press			•
	Korsch XL100 tablet press (10 station, fully instrumented, B and D turrets; multiple)			•
	Piccola classic press (10 station, fully instrumented with Director® software)			•
	MedelPharm STYL'One Evo compaction simulator			•
Encapsulation	Torpac proFill 100 capsule filler (sizes 00 thru 3) (multiple)		•	
	Torpac ProFill 3007/3700 capsule filler (sizes 00 thru 4 and 0el; multiple)		•	
	Torpac ProFunnel single capsule filler (sizes 00 thru 3)		•	
	Capsugel Xcelodose 600S capsule filler (sizes 00, 0, 1, 3)		•	
Coating	Freund-Vector LDCS HI-COATER (1.5L, 4L, and 8L)		•	•
	Freund-Vector LDCS-Plus HI-COATER (1.5L, 4L, 6L, 11L, and 20L)		•	•
Finishing	CapPlus CPT 200 capsule polisher		•	
	CI Precision SADE SP140 weight sorter		•	•
	Kramer E-80 tablet deduster			•
Tanks	Alloy Products Corp 20L tank (multiple)			
	Pope Scientific 75L jacketed tank			
	Northland 200L jacketed tank (multiple)			
Size reduction	Micron-Master Jet Pulverizer 2"			
	Fluid Energy Jet-O-Mizer Model 00			
	Silverson L4RT high shear mixer			
	Silverson 200L In-Line high shear mixer			
Other	Ertel Alsop 43T filtration system			

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