DAVIS-STANDARD®

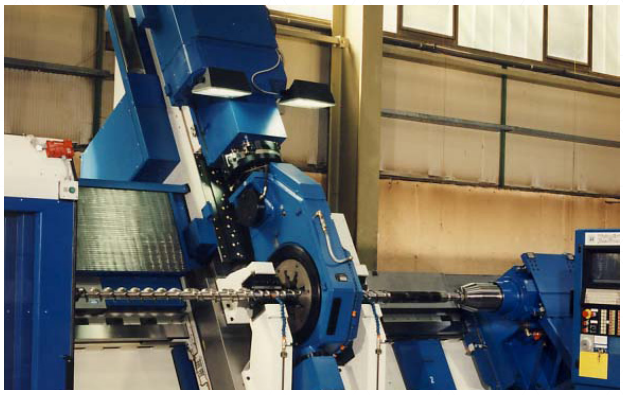
Where your ideas take shape.

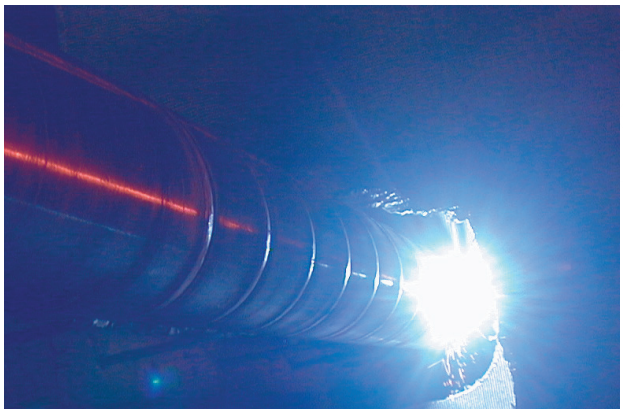
Aftermarket

Feedscrews

Overview

Davis-Standard's award-winning DSB® feedscrews are the industry standard for design excellence and mixing performance. High output rates, product consistency and energy efficiency are hallmarks of our feedscrew technology. Feedscrews are available from 3/4 to 12 inches in diameter with varying L/D's based on application. Each screw is designed for specific polymers and processes with customization available depending on end product. We support the full range of extrusion and converting applications including blown film, blow molding, cast film, compounding, elastomer, extrusion coating, fiber, laboratory, pipe, profile and tubing, reclaim, sheet and specialty systems. Our sales and service engineers work alongside customers to find the right solution for your manufacturing parameters.





Feedscrews

Profitability and Performance

Feedscrew design is an integral part of achieving profitability and performance on a daily basis. A better feedscrew equates to a better process. Ongoing research and development at our technical facilities has enabled us to continually improve upon screw design, which has delivered higher outputs and more consistent processing for customers worldwide. Through ongoing experimentation, customer trials, and proven performance in the field, our feedscrews continue to raise the bar in supporting extrusion and converting applications.

Process Technology and Engineering

Our screws are specified and designed by a highly educated and experienced team of process engineers. Pilot lines and lab extruders enable our engineers to perform real-world screw testing and output trials. When you purchase Davis-Standard equipment, part of our service includes running your polymers to fine-tune the process and design the perfect screw. After specifying the screw design, Davis-Standard's team of manufacturing engineers creates the models and drawings that will be sent to our manufacturing team. This provides the framework for ensuring your feedscrew needs are addressed up front, leaving nothing to chance at installation.

Manufacturing

We've designed, engineered, and manufactured feedscrews for over 60 years, giving us a significant advantage. From start to finish, our process is state-of-the-art. Plasma arc welding stations provide wear resistant materials such as Colmonoy 56 and 83. Three specially designed whirlers are used for screw cutting and milling to accommodate screws made of stainless steel, 4340 steel, or Inconel materials. These machines produce screw surfaces at very tight tolerances. After screws are milled and polished, they are then treated with chrome plating or other wear-resistant coatings. Before shipment, screws are fully inspected and receive a final polish to Davis-Standard's exacting qualities. The result is a feedscrew that will take your processing to the next level!

Manufacturing Methods and Materials Charts

Materials of Construction

Type	Properties
AISI 4140	Standard
AISI 4340	High Strength
Nitralloy 135M	Nitriding Steel
SS 17-4 PH	Corrosion Resistant SS
SS 15-5 PH	Corrosion Resistant SS
Inconel	Fluoropolymers High Corrosion Resistant
Hastelloy	Fluoropolymers High Corrosion Resistant
Duranickel	High Corrosion Resistant

Flight Treatments Available

Treatment	Application	Hardness R_C
Flame Hardening	Case	53 - 58
Nitriding (gas and ion)	Case	60 - 70
Stellite #6	Welded*	41 - 47
Colmonoy #56	Welded*	48 - 52
Colmonoy #83	Welded*	49 - 56

* Wear resistant alloys are applied to the screw surface by plasma welding.

Root Surface Treatments Available

Type	Properties
Hard Chrome	Corrosion Resistance
Nickel	High Corrosion
Spray Coatings	Abrasive Wear

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