WELLMAN
PRODUCTS GROUP

OPTIMIZATION THROUGH FRICTION TECHNOLOGY INTEGRATION

Wellman Products Group is renowned for providing innovative friction solutions for original equipment manufacturers around the globe. Our superior friction technology, advanced application engineering and progressive manufacturing techniques provide substantial benefits to our manufacturing partners. One of our latest innovations is a three-phase engineering package that can dramatically impact future product design and overall profitability of clutch, transmission and wet brake systems.

The Global Dynamic Force of Friction Innovation.

OPTIMIZATION THROUGH
FRICTION TECHNOLOGY INTEGRATION

PHASE 1 – FRICTION MATERIAL TECHNOLOGY

Increasing friction force equally increases torque output when all other factors remain constant. Incorporating Wellman's high density, high coefficient of friction discs can dramatically change overall system design, performance and production cost.

ADVANTAGES OF HIGHER COEFFICIENT OF FRICTION DISCS.

- Increase torque output
- Improve system durability
- Improve design flexibility
- Reduce applied force & system stress
- Reduce number of friction & steel discs
- Reduce raw material costs

PHASE 2 – PRESSED GROOVE TECHNOLOGY

Pressed grooved paper processing is not a new technology, but the ability to properly emboss high density, severe duty paper is. Pressed groove products allow you to optimize the efficiency of any wet system and minimize maintenance and repair due friction dust and debris. Wellman Products Group offers pressed groove processing as an upgrade option over traditional cut groove products.

CUT GROOVE CROSS SECTION

CUT GROOVES AT 40x

THE CUT GROOVE PROCESS, WHILE EFFECTIVE, GENERATES LOOSE FIBERS THAT AFFECT OPTIMAL OIL FLOW AND NEW PART CLEANLINESS (DEBRIS).

PRESSED GROOVE CROSS SECTION

PRESSED GROOVES AT 40x

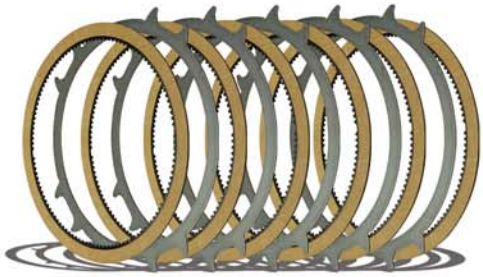
THE PRESSED GROOVE PROCESS GENERATES SMOOTH GROOVE CHANNELS TO OPTIMIZE OIL FLOW AND NEW PART CLEANLINESS.

ADVANTAGES OF PRESSED GROOVE OVER CUT GROOVE PAPER DISCS.

- Reduce parasitic drag
- Virtually eliminate excess dust and debris
- Increase oil pump efficiency
- Increase oil flow and cooling
- Improve oil filter life cycle
- Reduce warranty claims

PHASE 3 – COLLATED PACKS

Measuring and stacking multiple friction and steel discs to achieve a preferred overall stack height can be a labor intensive task. Take some of the work & risk out of the assembly line process with Wellman Products Group collated pack option. We offer complete friction and steel collated packs that will meet or exceed your desired tolerances.



COLLATED PACKS ARE AVAILABLE FOR VIRTUALLY ANY SIZE PART OR STACK HEIGHT.

ADVANTAGES OF COLLATED PACKS.

- Maintain consistent stack height
- Better control over drag
- Improve design flexibility for next generation products.
- Reduce friction pack assembly costs
- Minimize inventory carrying costs
- Maintain consistent performance

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