



**GRAZIANO™**

*Shifting Solutions*

# Synchronizer Units **TC 102/110/118**



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**40 years** of experience in synchronizer design, we are able to drive the customer in obtaining the best tailored specific shifting solution.

**80%** of all agricultural machinery in production today worldwide is equipped with our shifting solutions.

**1 million** synchronizers are produced per year for tractors, construction equipment, passenger cars, and trucks.

Worldwide, we have the largest range of shifting solutions, **from 62 to 184 mm.**

## Research and Development

- Best-in-class capability to develop the optimal solution for the most demanding customer's applications
- Layout studies, performance analysis, and virtual validation
- Internal testing capability on component, transmission, and vehicle
- Dedicated prototyping production department

## Innovation in Friction Materials

- Constantly developing the most innovative friction materials for synchronizers
- Long-term partnership with best-in-class suppliers
- Setting new standards in terms of shifting comfort and durability

## Current Synchronizers Size Range

**Type:** Reference diameter (mm)

<b>Single Cones</b>	62	68	74	82	90	114	114 HD	153	148 SM	168	184
<b>Double Cones</b>	71 / 76	86.5 / 92		95 / 100		109 / 116		128 / 135		162 / 170 SM	
<b>Triple Cones</b>	67 / 71 / 76			90 / 95 / 100				102 / 110 / 118			

**Dana.com/OH**

### Application Policy

Capacity ratings, features, and specifications vary depending upon the model and type of service. Application approvals must be obtained from Dana; contact your representative for application approval. We reserve the right to change or modify our product specifications, configurations, or dimensions at any time without notice.



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