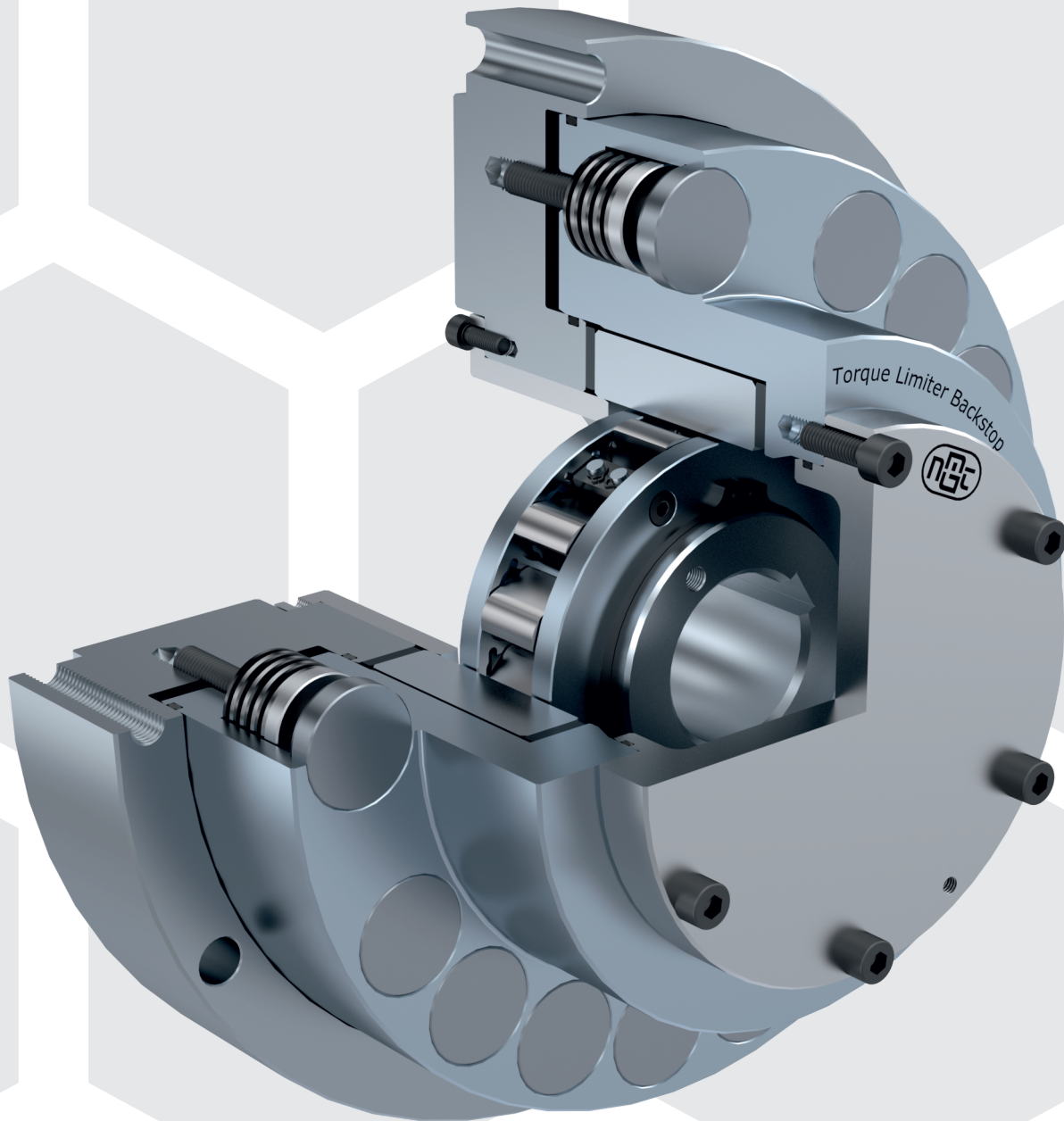


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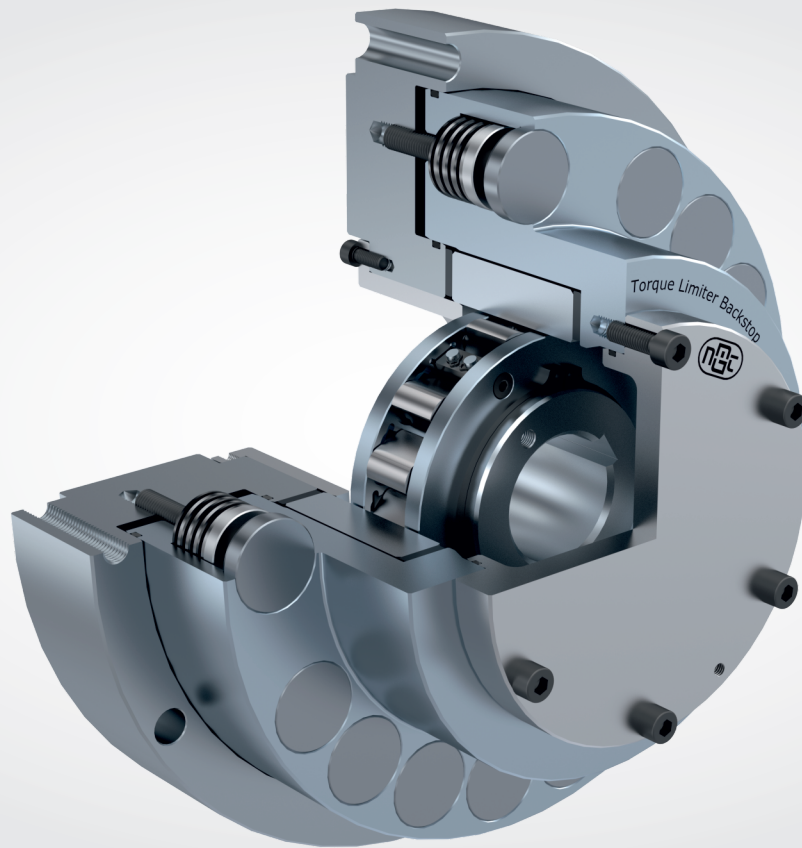


Torque Limiting Backstops

Torque Limiting Backstops are designed to ensure even distribution of back driving torque when the conveyor stops or stalls.

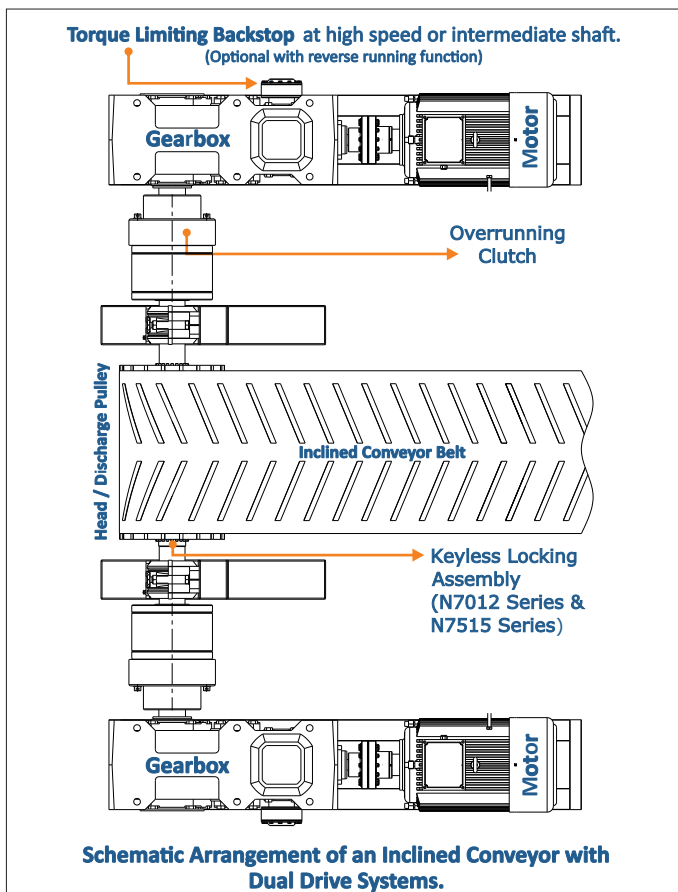
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Torque Limiting Backstops



NHTW & NHTU Series

❖ Application Example



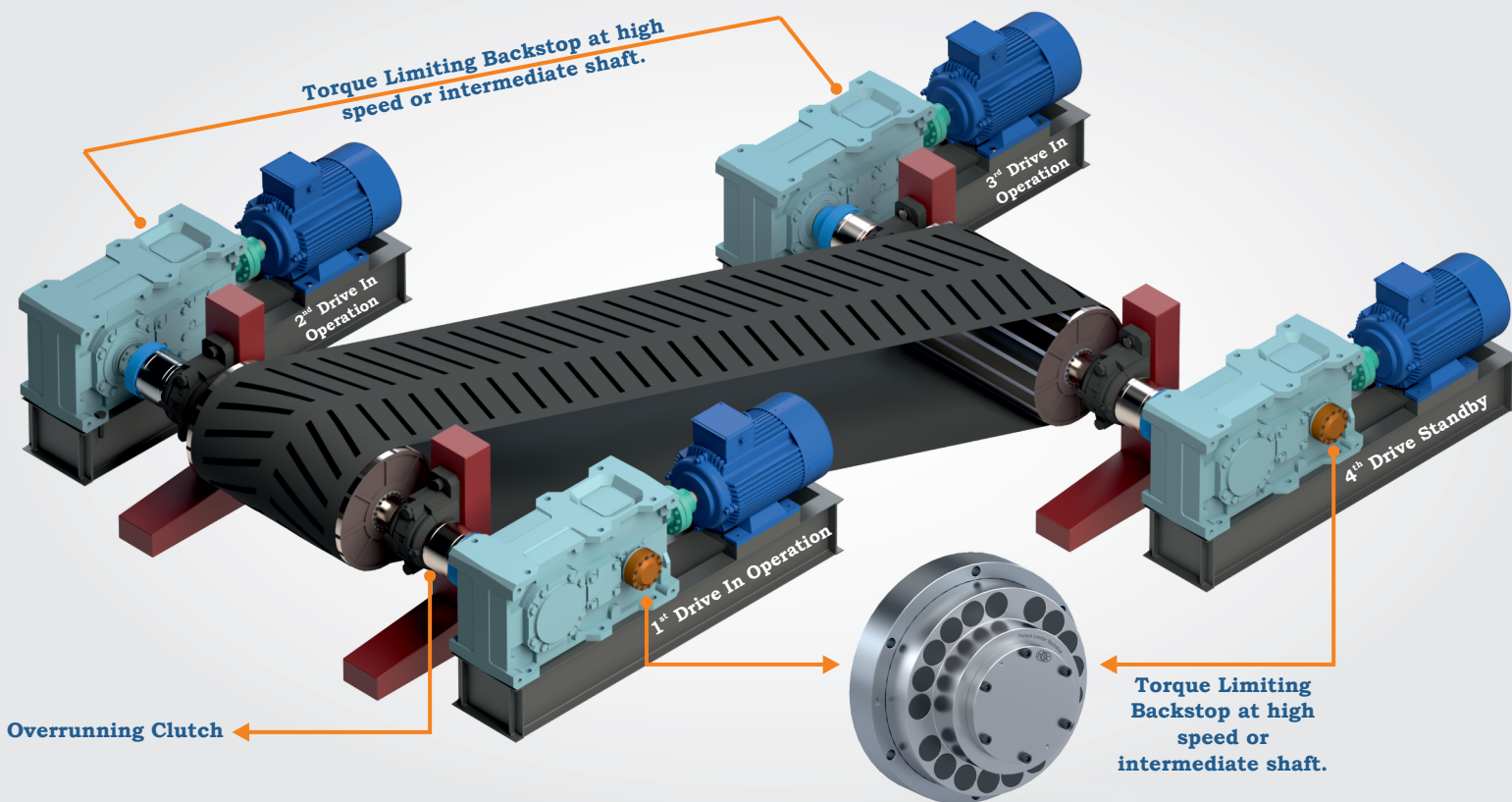
❖ Typical Applications

- ✓ Mining
- ✓ Steel Mills
- ✓ Material Handling
- ✓ Overland Conveying

❖ Features & Benefits

- Enables the use of smaller gearboxes without compromising safety.
- Shields gearboxes from sudden peak torques during the locking process.
- Protects backstops by reducing dynamic peak torques through temporary slipping.
- Prevents gearbox overload by ensuring balanced load distribution in multiple-drive systems.
- Ideal mechanism for releasing belt tension during jamming.
- Ideal for maintenance, enabling the belt to move backward
- Reduces belt tension under abnormal load from motor stall torque.

❖ General Information



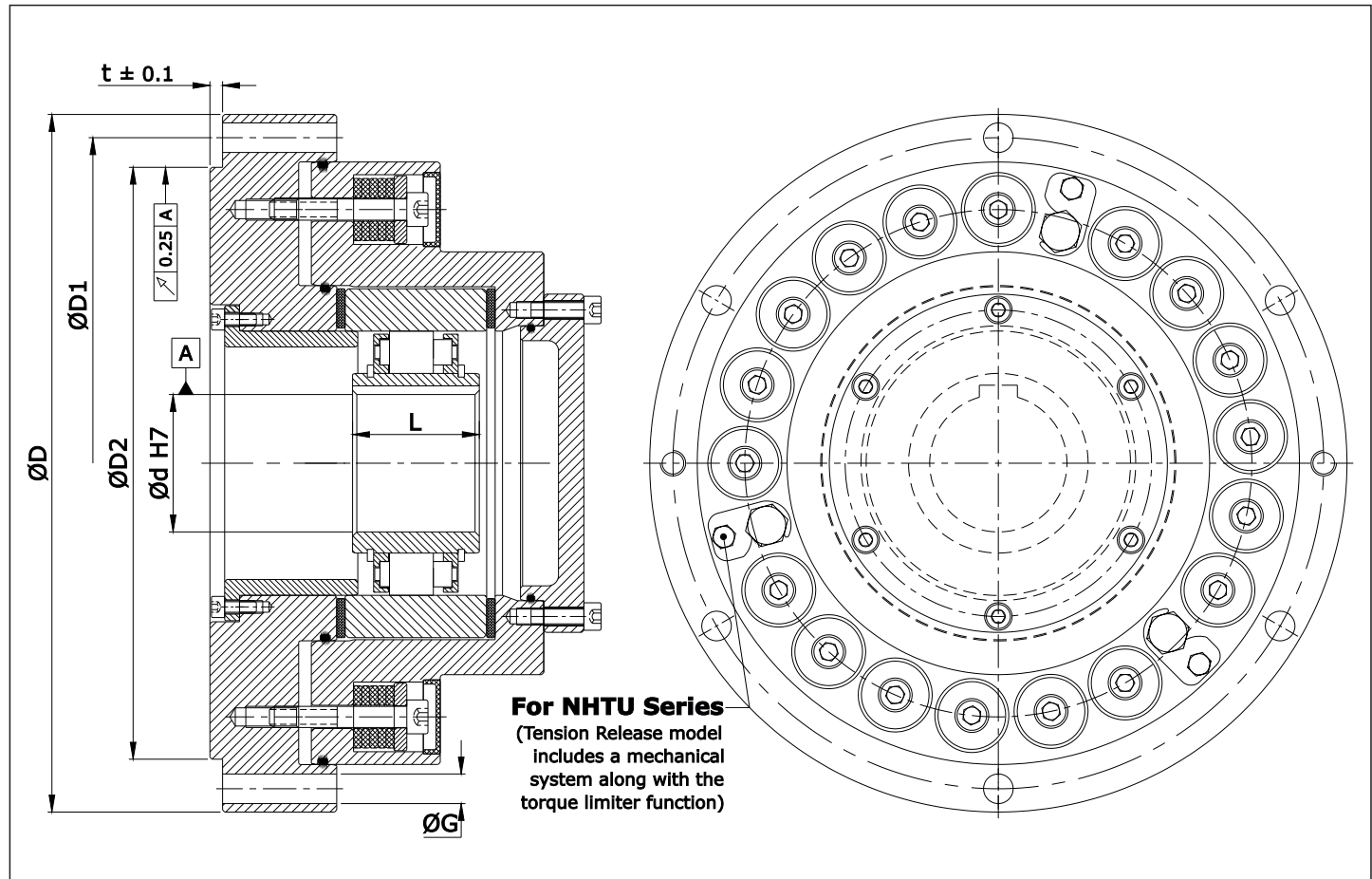
The NHB Series is a high-speed backstop with a **centrifugal lift-off sprag** and an **integrated torque limiter**. Torque Limiting Backstop is designed for use on the **high speed or intermediate shaft**. NMTG's Torque Limiting Backstops improve conveyor safety by preventing dangerous tension build-up when a conveyor stalls. Torque Limiting Backstops are designed for **dual drive or tandem drive** conveyor systems to ensure even distribution of back driving torque when the conveyor stops or stalls.

In conveyor systems with multiple drives, back driving torque is often unevenly distributed among the drives and backstops. When the system stops, most of the torque is absorbed by a single backstop due to differences in play and elasticity. If backstops lack torque limiters, gearboxes and backstops must be built to handle the full torque load for safety. Torque limiters help by temporarily slipping when torque exceeds a set limit, allowing other backstops to engage and evenly share the load. This reduces sudden peak torques, protecting gearboxes from damage and allowing for smaller gearbox designs.

- The **NHTW Series** Torque Limiter model combines a centrifugal lift-off sprag clutch with a torque limiter to manage unbalanced loads in multi-drive systems.
- The **NHTU Series** Tension Release model includes a mechanical system along with the torque limiter function.

Both models are perfect for inclined belt conveyors, ensuring safety and easy maintenance. The torque limiter is factory-set based on customer requirements to control the backstop's transmissible torque. It can also rotate backward periodically without damage. **A manual release function is available** through a mechanical system. The backstop is built-in, requiring the outer part to be centered and secured to the machine housing while maintaining proper run-out and squareness tolerances.

Torque Limiting Backstops



Torque Limiter Model Name-Size	Tension Release Model Name-Size	Maximal Slipping Torque (Nm)	Sprag Lift-off at inner race speed (RPM)	Max. Speed of Inner Race (RPM)	Max. Bore Diameter (d) (mm)	D (mm)	D1 (mm)	D2 (mm)	t (mm)	L (mm)	Number of fastening holes x 'G' (Nos. x mm)
NHTW 60	NHTU 60	3335	430	6000	65	330	308	280	6	60	6 x 14
NHTW 70	NHTU 70	4750	400	4500	75	350	328	300	6	70	6 x 14
NHTW 80	NHTU 80	7375	320	4000	90	400	373	340	6	70	6 x 18
NHTW 95H	NHTU 95H	12625	320	3000	110	430	403	375	6	80	6 x 18
NHTW 120H	NHTU 120H	19200	250	2700	130	500	473	425	6	80	6 x 18
NHTW 140	NHTU 140	30300	240	2100	155	555	528	495	6	80	6 x 18
NHTW 185H2	NHTU 185H2	56560	220	2500	185	710	670	630	8	120	12 x 22
NHTW 205	NHTU 205	65650	200	2500	205	750	710	670	8	120	12 x 22
NHTW 230H	NHTU 230H	90900	205	2500	230	850	800	730	8	120	12 x 26
NHTW 240H	NHTU 240H	108070	195	2100	240	900	850	775	10	120	12 x 26

❖ Mounting Parameters

- Keyway according to DIN 6885, P1. Torque Limiting Backstops have no bearing support, so the runout (T.I.R.) between the pilot diameter and shaft diameter must not exceed 0.25 mm. Dimension t applies to the Integrated Freewheel.
- The customer's attachment part must have a centering depth of at least $t + 0.2$ mm. The pilot diameter tolerance must follow ISO H7, and the shaft tolerance must follow ISO h6.

When ordering please state: (Type – Required Bore Dia: Ød)

: NHTW 60 – 50 mm (For Torque Limiter Model)

: NHTU 60 – 50 mm (For Tension Release Model)