SYNCHRO-FORM
ADAPTIVE BENDING TECHNOLOGY FOR XXL PROFILES
Synchro-Form is the next generation of adaptive bending - a unique system designed to make bending large profiles easy, efficient and consistently accurate.
Handling, positioning and forming large parts with multiple bends such as boom profiles or large radius shells is time consuming and labor intensive, often involving trial-and-error bend compensation and accumulative error.

This process typically requires:
- Skilled operator/s
- Manual measurements gauges traced bend lines; use of gauges
- Manual manipulation of the part
- Overhead crane and clamps
- Exchangeable punch radius

As a result, bending XXL profiles can be:
- Time intensive with lengthy setups
- Expensive
- Unreliable
- Potentially hazardous
- Limited in flexibility
- Not CAM connected
Synchro-Form is a revolutionary new approach to bending XXL profiles, developed by LVD, an industry leader and innovator. The Synchro-Form system evolves LVD’s renowned adaptive bending technology to automatically maintain angular consistency and the required geometric profile when bending large parts. Synchro-Form eliminates manual operations, reduces setup and handling, and ensures consistent bending results – delivering high throughput for XXL bending.

Eliminate trial and error bending with in-process adaptive bending technology
The Synchro-Form system uses a laser scanner and synchro modules (X, R, A-axes magnets) to manipulate, position and measure each bend. The digital information is relayed to the LVD TOUCH-B control, which makes adjustments to part and ram position to achieve the correct profile. Variations are not accumulated but compensated within each bend step. Even after multiple consecutive bends, the profile is perfectly formed.

Synchro-Form provides:
- Automatic positioning
- Automatic bending
- Measurement and compensation for accumulated error

LVD’s Synchro-Form system is an integrated feature of Synchro-Form Series in models ranging from 320 tons by 4 meters up to 3000 tons by 14 meters, and also available in tandem, tridem and quadem configurations.

The Synchro-Form Series is ideal for applications in the crane boom, yellow goods, lighting pole, construction, transport, agriculture, offshore, oil, gas and wind power industries.
LVD evolves adaptive bending technology with Synchro-Form – a revolutionary new solution for the forming of large profiles with multiple bends. This unique system makes bending large profiles easy, efficient and consistently accurate – eliminating trial-and-error bending and accumulative error. Synchro-Form provides automatic positioning, automatic measurement and compensation so that even after multiple consecutive bends, the profile is perfectly formed.