

# Application Data

## Stainless Steel Tube Bending for Automobile Exhaust Pipes

For tube bending of stainless steel or other material exhaust pipes, AMPCO® 18, 21 and M4 are used with great benefits for product quality and longlife of the production tooling.

### Material

AMPCO® 18 and M4

Nowadays, exhaust pipes for new automobiles are produced out of stainless steel tube in order to resist to corrosion and provide the happy owner of the vehicle many miles before changing the exhaust pipe.

AMPCO® M4 used as mandrel and wiper dies in tube bending machines has proven to last up to 20 times longer than commercial bronze.

### Advantages

#### Advantages of AMPCO® M4 mandrels:

- Extended life, lasts up to 20 times longer
- Perfect stainless steel tubes end product obtained
- No hardening or expensive coatings on the mandrel required

#### Advantages of AMPCO® M4 wiper dies:

- Extended life, lasts up to 20 times longer
- Perfect stainless steel tubes end product obtained
- No galling, no scratching, no corrosion starting point



For automobile exhaust pipes aftermarket, stainless steel is not used as raw material, but aluminised tubes are used. AMPCO® 18 mandrels and wiper dies are used here with benefit.

#### Advantages of AMPCO® 18 mandrels and wiper dies:

- Perfect exhaust pipes out of aluminised steel
- Extended life of the tooling
- Cost savings due to less down-time for maintenance

