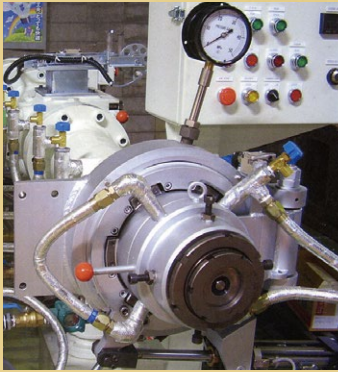
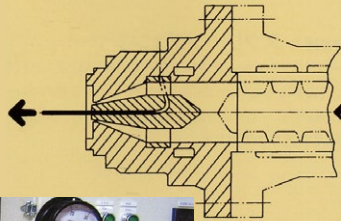


# EXTRUDER HEAD TYPES

## TESTING AND DEVELOPMENT OF EXTRUDERS

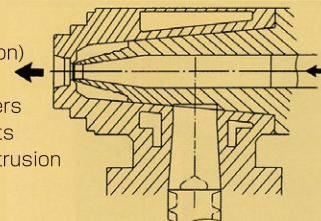
### Tube head

For circular or square hoses  
Extrusion



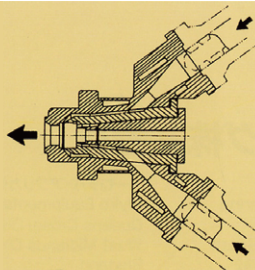
### Cross head (for duplex extrusion)

For rubber-like rollers  
or printers' blankets  
Metal insertion extrusion  
is possible



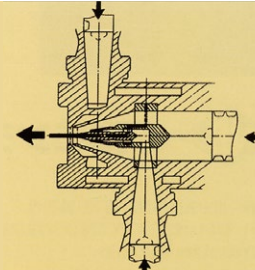
### Double head

For double extrusion  
Example -  
for door seals  
for bicycles

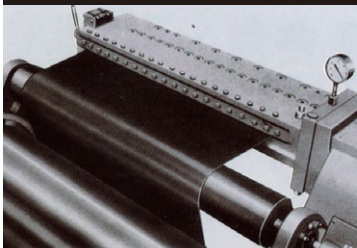


### Triple head

For triplex extrusion  
For automobiles  
For weather strips

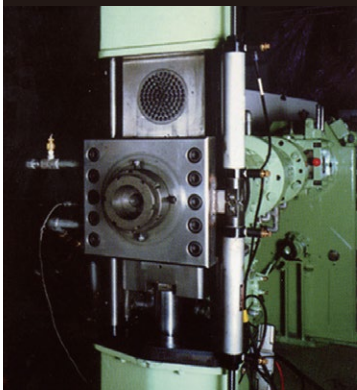


## L-TYPE HEAD



This head is designed to extrude at right angles (L-Type) to the extruder screw. It is equipped with devices to adjust the extrusion rate and thickness to deliver the sheet uniformly, at internal head pressures up to 200kg/cm<sup>2</sup>. For head temperature control, it is equipped with a built-in electric heater. Forming range: 1000m x 1 to 5mm.

## SCREEN CHANGER



The vacuum screen changer is a device to remove foreign materials that may enter the rubber compounds. It is mounted on the part of the head located at the top of the extruder. The vacuum screen changer consists of a pair of breaker plates divided into upper and lower parts, which can be interchanged quickly and automatically in vacuum condition. The vacuum screen changer is a device essential for efficiently producing continuous extrusions that are not mixed with air.

# COMBINATION OF EXTRUDER AND GEAR PUMP

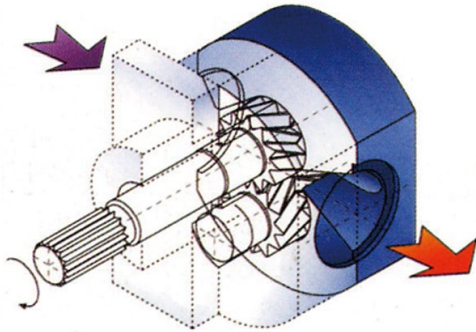
## High accuracy, low temperature and high output extruding system

With the combination of extruder and gear pump, dispersion is reduced to 1% or less, as compared to about 3% with uniaxial extruder.

In combination with cold, pin and vent type extruders, the gear pumps enhance the Nakata Extruders and allow them to work at the highest levels of accuracy and quality.

### MAJOR ADVANTAGES

Flow of rubber inside the pump

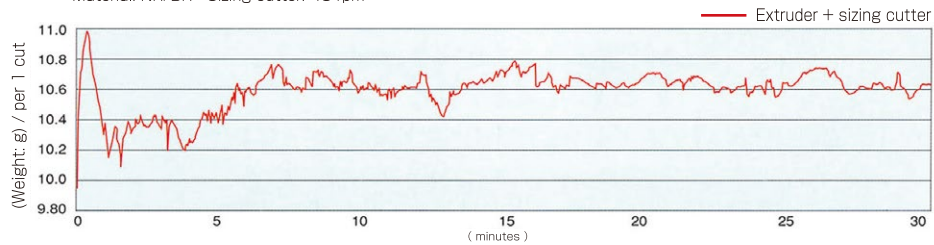


- Offers stable product extrusion regardless of changes in screw revolution.
- Speedy extrusion with highest dimensional accuracy.
- Allows high die pressure.
- Avoids excessively high compound temperatures.
- Considerable output pressures at high pressure.
- Avoids vent type extruder flooding.
- Versatile and retrofittable to all extruder lines.
- Minimum rubber wastage.

### COLD FEED EXTRUDER

#### 90 mm diameter cold extruder (L/D=12)

Time needed to stabilize: approx. 6 min. Screw revolutions: 6.0 rpm Output pressure: 45kg/cm<sup>2</sup>  
Material: NR/BR Sizing cutter: 48 rpm



#### 90 mm diameter cold extruder (L/D=12) + Gear pump (ZP75/50)

Time needed to stabilize: stabilizes right away Screw revolutions: 4.0 rpm Output pressure: 45kg/cm<sup>2</sup>  
Material: NR/BR Sizing cutter: 48 rpm

When controlling pressure of rubber fed into gear pump

