



EXPANDO  
Shaft Slitting System

# Expando, General Information



## Advantages

- ✘ Cutting quality not depending from operator's skill
- ✘ Min. Cut starts from 50mm
- ✘ Speed up to 1800 m/min
- ✘ Low maintenance cost: no regrinding, no shaft removal

## Positioning

- ✘ Manual
- ✘ Visualized
- ✘ Automatic

# Expando – Features



## Expando – Expandable Shaft

Once bottom knives are positioned in order to reach the desired recipe, **Expandable Shaft** allows, thanks to its pneumatic expanders, the **simultaneous blocking** just providing air.

Whereas, bottom knife mounted on **Plain Shaft** Systems requires to be **locked one by one** by tightening via grub screw.



# Expando – Expando Bottom Knife

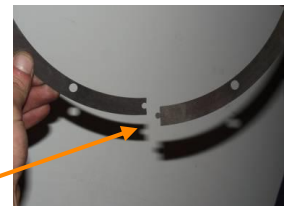


Composed by:

- ⊠ Support for Expandable Shaft
- ⊠ Cutting ring in HSS Steel
- ⊠ Locking flange of the ring on the support

## *SIZE MATTERS!*

Mario Cotta can provide solution **from 110 mm up to 275 mm**, suitable for almost every solution market might need.



HSS cutting ring can be opened and removed from the shaft.

**NO SHAFT REMOVAL!!!**

## Expando Advantages:

- Reduced maintenance time
- Increased lifetime of the HSS ring
- Double cutting edges of the ring
- Constant cutting point
- **Stability and Minimum Cut** granted by Triple Wing Concept

# Expando – Expandette Steel

Steel	Common Denomination	HRC Hardness	Reference Life	Internal Code Last Letter
100 Cr 6	Common Steel	58 – 60	1	“C”
K100	Chrome 12% Or D2	60-62	2	“X”
HSS	Super Rapid Steel	62-64	4	“H”
ASP2053	ASP	64-66	6	“P”
Tungsten Carbide	Tungsten Carbide	(HV10) 1680	10	“W”

## PERMANENT SETTING AND FAST DISPLACEMENT

- ☒ Parameters (cutting angle, overlap and side load) are set at start-up, and are constant along all machine operation time – **NO REGRINDING = NO RE-SET!**
- ☒ Manual System – 3 min to displace 10 units; Automatic – 3 min to displace 40 units

## REDUCED MAINTENANCE TIME AND COSTS

- ☒ **No Bottom Knife regrinding needed: exchange of EXPANDETTE HSS ring** (high quality HSS, with double side cutting edge (each ring can be used for 2 times, and Ring vs Anvil cost is up to 1:5)
- ☒ **No need of removing the Expandable Shaft**
- ☒ Permanent parameters = Constant distance between knife and bottom knife - **High and constant cutting quality not depending from operator's skill**

## HIGHER SAFETY

- ☒ Simultaneous displacement and constant parameter do not require frequent tasks around sharpen edges
- ☒ **No need of dismounting shafts and bottom knives, but only HSS rings (weight < 80g)**

# Expando – When and Where?

## EXPANDO IS THE BEST SOLUTION ON THE MARKET WHEN...

- ☒ High number of Slits (>10)
- ☒ Frequent slitting width changes per day
- ☒ Need to reduce maintenance costs and downtime

## ...AND WHERE FOLLOWING DATA APPLIES

- ☒ **Material:** Tissue, Paperboard for Tubes, WNW, Aluminium
- ☒ **Width:** Up to 4.000 mm (Depending on max speed)
- ☒ **Speed:** Up to 1.800 m/min
- ☒ **Min. cutting width:** 50-60 mm (depending on speed/material)



Thank you for your attention.  
For further information

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