

EXPANDING AIR SHAFTS

WITH INDEPENDENT AND INTERCHANGEABLE KEY-ROWS



MAXIMUM LIGHTNESS AND PERFORMANCE



I.E.S.

NOT JUST DIFFERENT: BETTER



Five or more interchangeable key rows with independent air tubes each one with its own retention valve.

If one or more air tube should accidentally lose air, the others remain inflated and the job can be finished in any case.

Minimum maintenance, spare key rows ready for replacement.



On inflation of the multiple independent air tubes, the gripping keys rise uniformly providing continuous shaft to core contact on the core width, blocking it perfectly. **Suitable for any unwinding or rewinding application.**



I.E.S.
INTERNATIONAL EXPANDING SHAFTS S.R.L.

PRODUZIONE E COMMERCIO DI ALBERI ESPANSIBILI E AFFINI
PER CARTIERE, CARTOTECNICHE, INDUSTRIE TESSILI
Sede Amministrativa e Stabilimento
Via Bergamo, 1 - 20098 San Giuliano Milanese (Mi)
Tel. +39 02 98281079 (3 linee r.a.) - Fax +39 0298281101
info@ies-srl.it - www.ies-srl.it

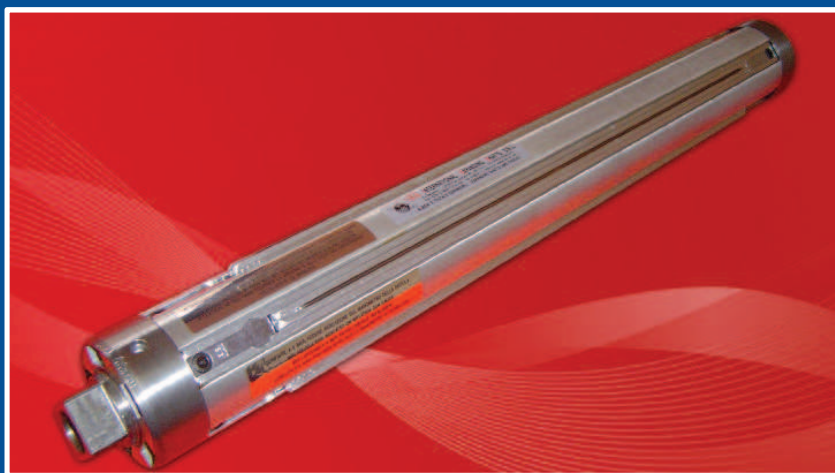
EXPANDING AIR SHAFTS

WITH LONG SELF-CENTERING KEYS



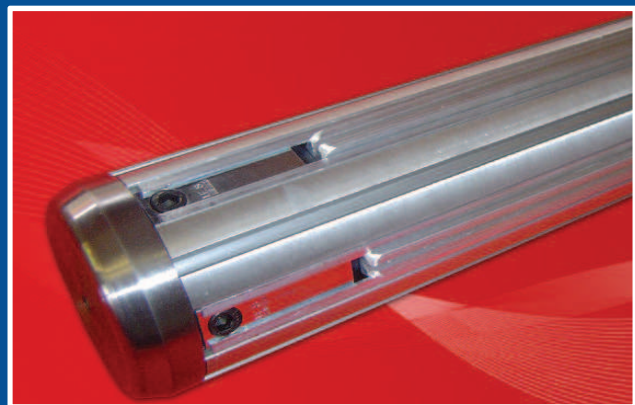
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The shafts equipped with these long keys have been developed by us to be used with cores of any type of material. They perfectly center the roll **without having to use costly pre-centering systems.**

For optimal centering, the shaft must be equipped with at least three of these key rows with long keys and it's possible to alternate them with key rows equipped with the usual black or red keys to avoid any axial movement of the reels.



Suitable for **cardboard** cores if equipped with long self-centering aluminium keys, the shafts can be also used with **plastic** and **steel cores** adding a steel square insert into the keys. **These shafts are suitable for entire or cut in two rolls.**



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