



FEDEX* NF1

Exothermic feeder sleeves for non ferrous applications

VESUVIUS





FEEDEX NF1

Exothermic sleeves for non ferrous applications

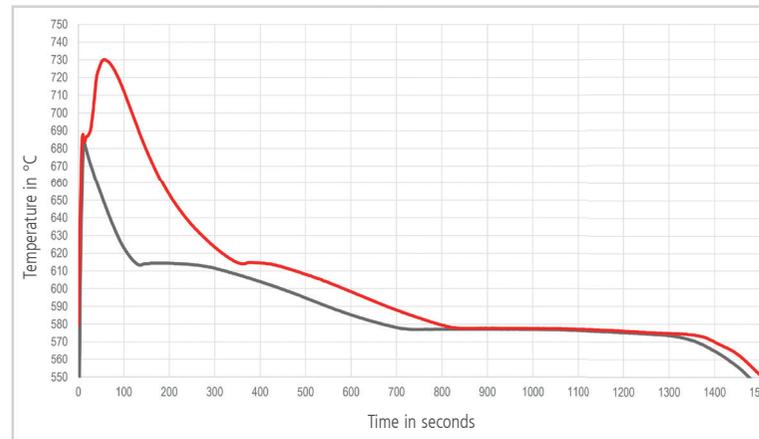
The use of insulating feeders is common practice in aluminium foundries. In this segment, many different products are available. In most cases, the products are made of fibres or spheres. In both cases, organic or inorganic binders are being used.

If the insulating property is not sufficient, or if the size of the sleeve is limited, very often exothermic powders are applied. These powders start an exothermic reaction when in contact with liquid aluminium and provide their energy to the melt in the feeder to slow down solidification.

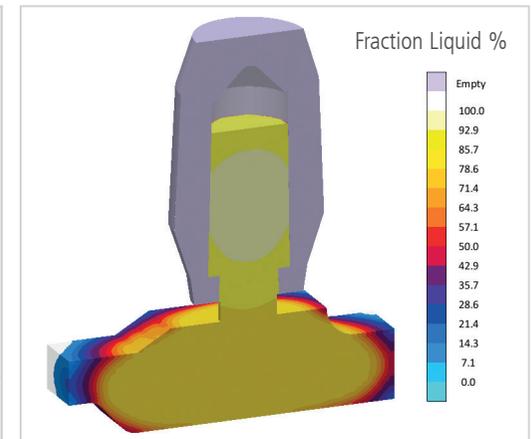
With the new FEEDEX NF1 sleeves, Foseco now offers a range of exothermic feeders developed specifically for aluminium applications.

The exothermic properties of FEEDEX NF1 sleeves make the application of exothermic powders obsolete. The sleeve ignites within 30 seconds of coming into contact with molten aluminium. The steady and long-lasting exothermic reaction significantly delays solidification of the metal in the sleeve ensuring excellent feed performance.

The graph shows a typical cooling curve of a FEEDEX NF1 sleeve. The exothermic reaction is clearly visible. The released energy significantly delays solidification.



Comparison between cooling curve of an exothermic feeder sleeve FEEDEX NF1 and insulating feeder sleeve KALMIN* S



MAGMA simulation

Innovative concept

FEEDEX NF1 sleeves

Highly exothermic

- + Improved feeding performance

Due to the improved feeding performance, the volume of the sleeve can be reduced which leads to lower re-melting costs and higher casting yields.

Very high strength

- + Application on automated moulding lines is possible and problems with broken or deformed sleeves during the moulding process are avoided.

Minimised fettling costs

- + By the use of breaker cores

Easy and quick knock-off of the sleeves reduce labour and machining costs.

Reduced process variations and emissions

- + Manual application of exothermic powder becomes obsolete

The variation in the process due to the manual addition of exothermic powder is avoided. Consequently, emissions are reduced.

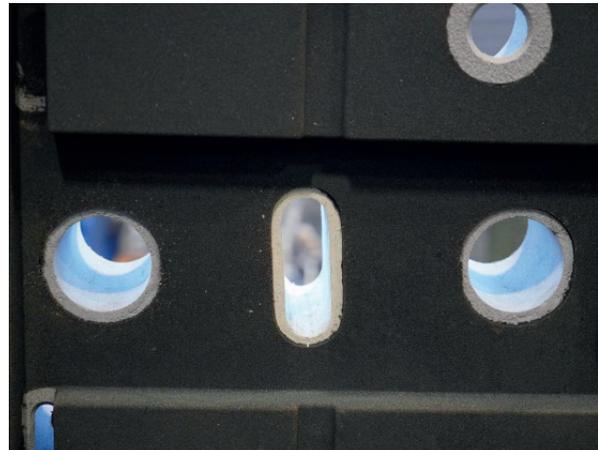


FEEDEX NF1 product range

Feeders applied to the pattern plate



Feeders after moulding



Riser ready to be knocked off after casting



FEDEX NF1 product range

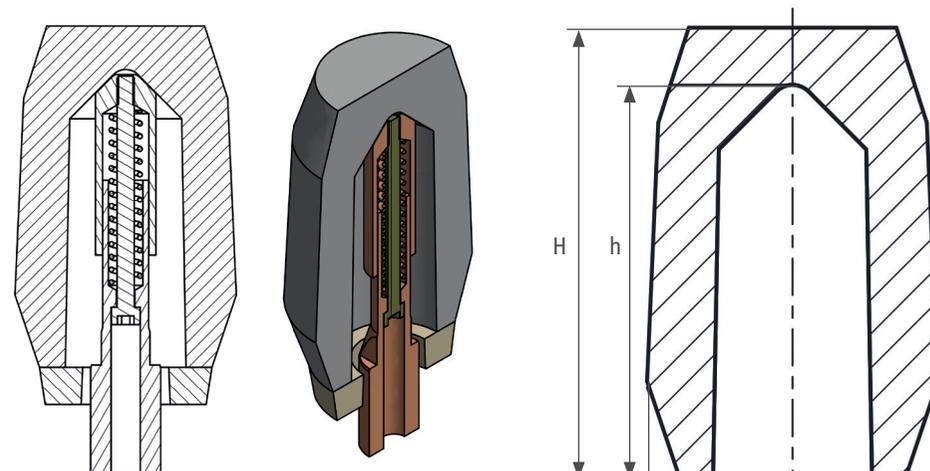
High performance exothermic feeding technology for non ferrous applications

The FEDEX NF1 VSN sleeves

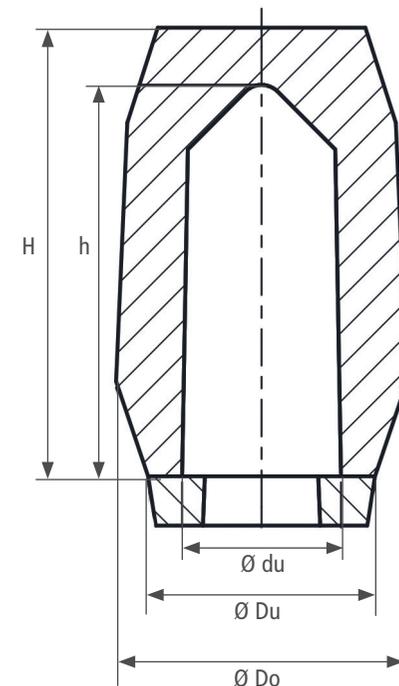
The proven FEDEX NF1 VSN technology offers a wide range of products, covering a variety of casting designs and feed requirements.

FEDEX NF1 N sleeves

For applications where cylindrical sleeves are desired, the FEDEX NF1 N range is available in all common dimensions.



Type VSN 118/51 C8 with spring mandrel



Feeder VSN scale. For Dimensions of feeder sleeves VSN see table.

Dimensions of feeder sleeves NF1 VSN

NF1 Typs	Module [cm]	Volume [cm ³]	du [mm]	Du [mm]	Do [mm]	h [mm]	H [mm]	Standard breaker core NF1 VSN	Guiding breaker core NF1 VSN	Pal. unit [pcs]	Geometr. modulus
VSN 35	0,9	35	28	42	60	70	85	35/10 C8	-	2.520	0,56
VSN 72	1,2	72	35	53	70	90	105	72/10 C8	72/51 C8	1.260	0,71
VSN 118	1,4	118	42	60	77	103	118	118/10 C8	118/51 C8	840	0,85
VSN 191	1,6	191	50	68	88	118	133	191/10 C8	191/51 C8	672	1,00
VSN 283	1,9	283	58	76	96	130	145	283/10 C8	283/51 C8	400	1,15
VSN 392	2,1	392	66	84	104	140	155	392/10 C8	392/51 C8		1,3
VSN 517	2,4	517	72	90	110	155	170	517/10 C8	517/51 C8	240	1,45



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