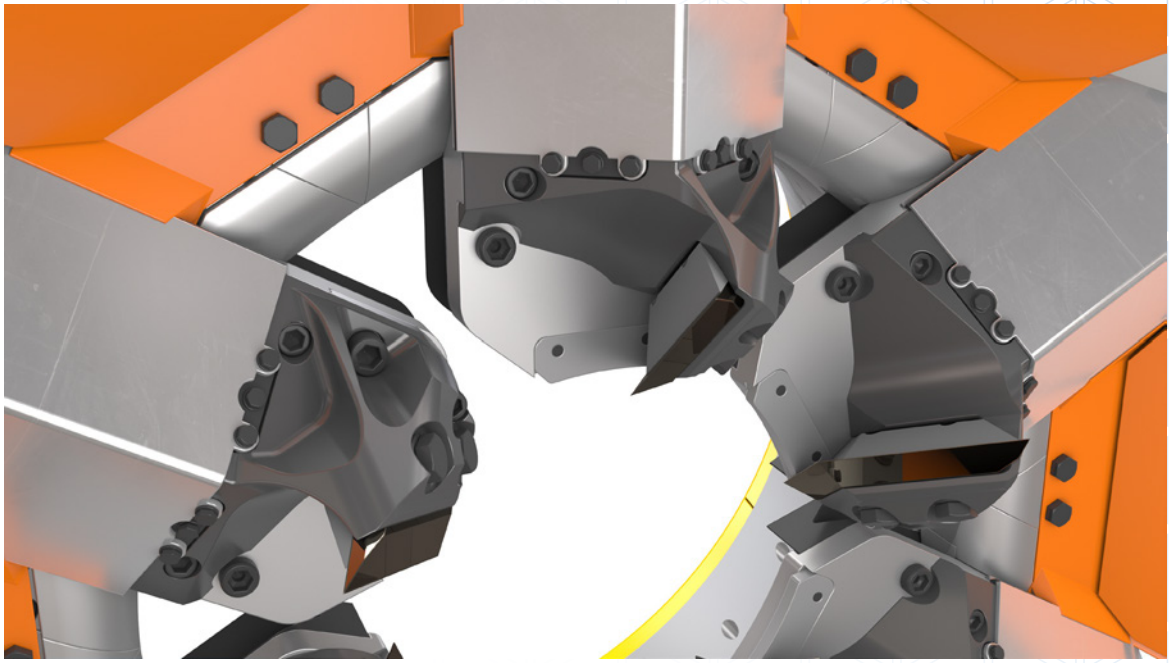
RETROFIT PRODUCTS

VFR - Variable Flare Reducer

For real time adjustable flare reducing

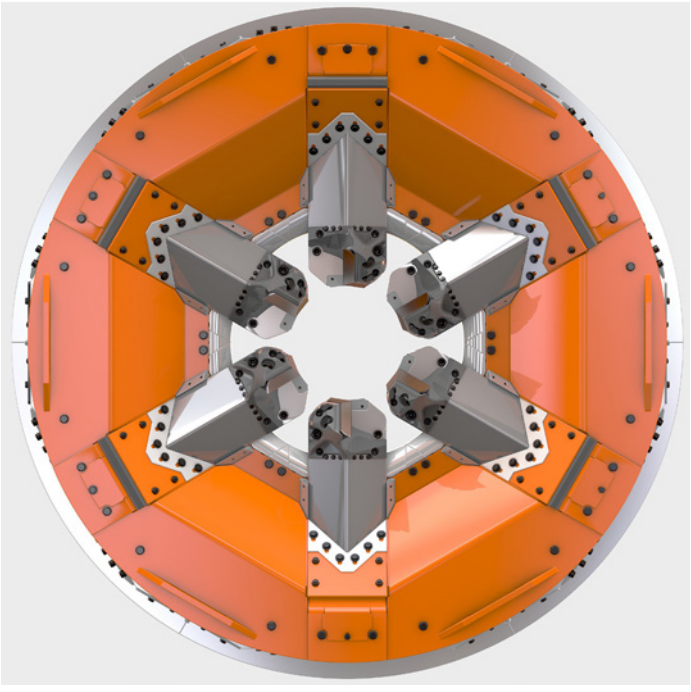


Valon Kone revolutionized log processing by pioneering the in-line butt reducing concept and bringing it to market in the early 1990s. For more than three decades, Valon Kone has led the industry, delivering hundreds of debarkers equipped with high-performance butt reducing rotors.

Today, VK butt reducing solutions are the trusted choice of leading sawmills across Scandinavia, Finland, and the Baltic countries — setting the standard for efficiency, reliability, and superior quality.

Compared to the fixed VK butt reducing rotor, the Variable Flare Reducer (VFR) features a unique and intelligent design that automatically adjusts and repositions the cutting tools for each individual log. This fast, precise adaptation enables efficient processing even when logs are unsorted by diameter.

By performing flare reduction in-line, VFR eliminates unnecessary production stops and ensures continuous log flow. The result is higher productivity, improved material efficiency, and smoother operation — all in one integrated solution.



valonkone.com

VALON KONE OY
P.O. Box 29
FI-08101 Lohja

Tel: +358 19 36 061
marketing@valonkone.com

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Replaces all previous versions

Features

- Cutting tool positions are automatically adjusted for each individual log
- Hydraulically powered tool positioning mechanism
- Flare size, taper, and shape are measured before the log enters the debarker (via the light curtain in the VK infeed conveyor)
- Reducing speed is automatically controlled and adapts to the volume of material being removed
- Typically installed in the first rotor position of the machine frame, ahead of debarking — enabling a smaller debarking rotor size
- Can operate independently of the debarking function
- Available in three rotor sizes with maximum tool openings of 60 cm (24”), 65 cm (26”), and 78 cm (31”) — tool movement range up to 40 cm (16”)
- Equipped with six cutting tools
- Hydraulic pull-out system for service positioning
- Capable of feeding logs either thin-end or thick-end first

Benefits

- No log diameter sorting required prior to reducing
- Easy operation with fully automatic tool positioning
- Unlike fixed butt reducing rotors, no separate device is required to change settings or replace the reducing ring
- Quick tool adjustment minimizes log gaps
- Reducing is performed primarily at debarking speed without stopping the log — maximizing production output (unlike conventional cutter head reducers)
- No need to remove logs from the infeed line for reducing, simplifying line planning and improving log flow (unlike conventional cutter head reducers)
- Ensures stable production in all seasons, including when processing frozen logs

Technical Data

Rotor size	**VFR 600**			**VFR 650**			**VFR 780**		
Number of cutting tools	6			6			6		
Tool opening, min./max.	20-60 cm (8-24”)			25-65 cm (10-26’’)			38-78 cm (15-31’’)		
Tool waiting position, TWP	40 cm (16”)			45 cm (18’’)			58 cm (23’’)		
Max. cutting/radius	10 cm (4”)			10 cm (4’’)			10 cm (4’’)		
Max. log diameter before reducing	80 cm (32”)			85 cm (34’’)			98 cm (39’’)		
Max. reducing length	Not limited (speed reduction for >1m (40’’))			Not limited (speed reduction for >1m (40’’))			Not limited (speed reduction for >1m (40’’))		
Min. log length (number of feedrolls will be defined case by case)	**Model**	**Top first**	**Butt first**	**Model**	**Top first**	**Butt first**	**Model**	**Top first**	**Butt first**
	5000	2,4 m (95”)	2,4 m (95”)	**5000**	2,4 m (95”)	2,4 m (95’’)	**5000**	n.a.	
	8000	2,9 m (114”)	2,9 m (114”)	**8000**	2,9 m (114’’)	2,9 m (114’’)	**8000**	2,9 m (114’’)	2,9 m (114’’)
	9000	2,8 m (110”)	2,8 m (110”)	**9000**	2,8 m (110’’)	2,8 m (110’’)	**9000**	2,8 m (110’’)	2,8 m (110’’)
Tool opening time, min. → max.	0,9 s			0,9 s			0,9 s		
Tool opening time, TWP → min./max.	0,5 s			0,5 s			0,5 s		
Max. reducing speed (mathematical*)	Up to 140 m/min (460 ft/min)			up to 140 m/min (460 ft/min)			up to 140 m/min (460 ft/min)		
Electric motor, rotor**	250 kW (335 hp)			250 kW (335 hp)			250 kW (335 hp)		
Electric motor, hydraulic powerpack	30 kW (40 hp)			30 kW (40 hp)			30 kW (40 hp)		
Weight (estimated)	14.750 kg - 14.800 kg (32.518 - 32.628 lbs)								

** Number of tools x rotor rpm x max. effective cutting/tool*
*** If necessary, electric motor size 315/400 kW (420/540 hp) depending on speed requirement/cutting volume*

Due to continuous product development the technical data is subject to change without further notice.

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