

# MULTISTAR

MOBILE STAR SCREENS  
WIDE RANGE OF APPLICATION  
EXACT SCREENING  
LOW OPERATING COSTS  
MULTI-FUNCTIONAL





## HIGHLIGHTS



- » Separation into 2 or 3 fractions on one machine, in one pass
- » High throughput and precise selectivity with the CLEANSTAR system
- » High flexibility with particle size changes in just seconds
- » Ease of operation and simple servicing with intelligent machine design
- » Multi-functional with numerous options



# SCREENING WITH STARS

Screening is a fundamental treatment stage in the processing of waste, recyclables and biomass. Star screen technology is increasingly used for the job, and in most cases the screener is a Multistar. The reason is simple - one machine and one pass are sufficient to divide the material into 2 or 3 fractions. Thanks to the patented cleaning system, throughput and selectivity are high, even with moist material.

To change the particle size, the operator just presses a button – the machine does the rest. The electrical drive gives quiet, efficient and economical operation. With a host of options, there is a configuration that is ideal for virtually any application and system size. Magnet separation, wind sifting and separation of the rolling fraction make star screens multi-functional workhorses.





01

### Biomass

Green waste, rootstocks, forestry residue, fresh compost

Using star screen technology, high-quality fuel can be extracted from shredded, woody biomass in just one screening run. The rotating stars disentangle the material and knock off any dirt or mud. What is output as fine or oversized particles is decided from the operator console. Variations in the material are evened out, and a high quality usable fraction is assured.



02

### Compost

Green compost, bio-compost, sludge compost

Screening is always in season with Multistar star screens. Throughput and selectivity are high, even with fluctuations in moisture content and states of decomposition. Options such as wind sifting, Fe separation and separation of the rolling fraction ensure a quality compost product that is free of contaminants.



03

### Wood

Treated/untreated waste wood, wood chips, bark

Star screens give impressively high throughput, and can produce all particle sizes commonly required in the market. Fines and overlengths are reliably separated out, and Fe separation and wind sifting can be added if required.



04

### Waste

Commercial waste, MSW, residual waste

Fractions with high calorific value are separated from shredded waste fractions by the disc separator/star screen combination (MS L3 Flowerdisc). High throughput, low wear, and thus low maintenance overhead are the hallmarks of this flexible mobile solution.

# INSIDE THE MACHINE

The functional principle: From coarse to fine

The core of the star screens consists of one or two screen decks, depending on the model. The rotating shafts of the coarse screen deck move the material horizontally. Everything that cannot fall through the defined gap between the stars is separated off as coarse material. Material falling through the screen moves on the fine screen deck fitted with smaller stars, and is separated into fine and medium fractions in the same way. The screening flow from coarse to fine delivers high quality output in a short screen length, and keeps larger contraries out of the fine fraction.

Particle size can be controlled by varying the rotation speed of the star shafts. Using frequency converters on the operator console, the particle size can be changed within seconds within the range determined by the star geometry. All functions are monitored by a central control unit which reports on the current operational status.



**Economical hybrid drive**

- » Electric drive of all components, from grid power or a diesel generator
- » Lower fuel, wear, and maintenance costs than with diesel-hydraulic drive

01  
Metering drum

02  
Coarse screen deck

03  
Hopper with  
scraper conveyor

04  
Diesel generator

05  
Fine screen deck





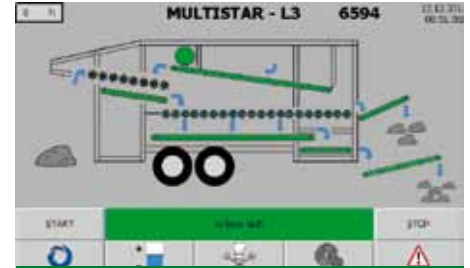
#### No hopper clogging

- » Large hopper with rounded corners and active metering drum
- » Reliable material feed with inclined floor and scraper conveyor (L/XL/XXL/XXXL)



#### Screen decks - coarse before fine

- » Coarse before fine screening delivers high-quality output in compact machine dimensions
- » Fast, easy reconfiguration of screen decks thanks to modular design



#### Intelligent control

- » Easy touch panel operation with automatic starting and idle, programmable settings, etc. (L/XL/XXL/XXXL)
- » Wide range of star speed adjustment to control screening size



#### Maintenance-friendly

- » Low-maintenance deck drive by electric motors with frequency converters
- » All service areas readily accessible
- » Motor units swing or pull out for service; openings provide easy access to the fine screen deck









#### Star wear protection

- » Geometrically optimised, highly elastic stars with cleaning elements
- » Low wear costs through individually replaceable stars and cleaning elements



#### Screening

Coarse	Medium	Fine
		
Screen sections		
0/60...90 mm   0/90...120 mm   0/120...150 mm	0/30...60 mm	0/10...25 mm 0/15...30 mm with spacer bushings 0/8...20 mm with attachment rings
Type of star		
8-finger star Ø=340 mm (width: 55, 85, 110 mm)	8-finger star Ø=340 mm	12-finger star Ø=166 mm
		





## HIGHLIGHTS



- » Separation into three fractions (M2: Two fractions) with discharge of all fractions at machine end
- » High throughput with precise selectivity with the CLEANSTAR system
- » High flexibility, with particle size change in seconds
- » Ease of operation and simple servicing through intelligent machine design



# M2 / M3 ENTRY-LEVEL

The Multistar M3 and M2 star screen machines offer professional technology for the medium performance range. Features include mobility through mounting on a central two-axle trailer, a 5 m³ feed hopper with low loading height, and three separate folding discharge belts at the machine end (M2: two discharge belts).

The electric drive (or optional diesel-electric) and intelligent control with self-explanatory graphics provide a comfortable working environment. Servicing and maintenance work is simple and quick with the extendable motor unit, large folding side panels and completely retractable fine screen deck.



01

## Right-sized

The M3 is optimised for operation with one front-loader. It can handle everything a front-loader can move, i.e. filling of the machine and removal of the screened fractions.

The hopper, familiar from Komptech drum screen technology, boasts a volume exceeding 5 m<sup>3</sup> and a loading height of only 2.8 m.



02

## Out the back

A coarse screen and a fine screen underneath it split the material into three fractions. All material is discharged at the rear of the machine, via the three conveyor belts. Windrows can be created from the output, and the intake mechanism at the front remains accessible during operation.



03

## Economical hybrid drive

On the Multistar star screens all components electric-powered, by a diesel generator, or directly from the grid for the lowest energy costs. The removable generator version (M3, M2) provides high flexibility, since it makes it possible to run the machine where no electrical connection is available.

## Technical specifications

	Multistar M2	Multistar M3
<b>Drive</b>		
Power input (kW):	34	46
Diesel generator (kVA):	48	48
<b>Material feeding</b>		
Hopper volume (m <sup>3</sup> ):	> 5	> 5
<b>Screen section</b>		
Coarse screen L x W (mm) / area (m <sup>2</sup> ):	-	2132 x 1138 / 2.4
Fine screen L x W (mm) / area (m <sup>2</sup> ):	4522 x 1138 / 5.1	3591 x 1138 / 4.1
<b>Dimensions</b>		
Transport dimension L x W x H (mm):	11750 x 2550 x 4000	11500 x 2550 x 4000
<b>Throughput</b> (dependent on material)		
Throughput performance (m <sup>3</sup> /h):	up to 100	up to 120



04

## M2 with optional wind sifter

The M2 is the perfect choice for operators who need only two fractions but still want to leverage the benefits of star screen technology. The feed area is the same as on the M3, but there is only one screen deck, for either fine or coarse screening. An optional wind sifter with powerful 15 kW suction capacity provides effective separation of contraries from the coarse fraction.





## HIGHLIGHTS



- » Three size fractions (L2: two fractions), windsifting, Fe-separation, in one compact machine
- » 7 m<sup>3</sup> hopper, wide discharge belts for convenient working
- » Extremely economical, high throughput, low energy and wear costs
- » Mobility – central axle trailer (L3/L2) or semitrailer (XL)
- » Long coarse screen on L3-L and XL - ideal for biomass processing



# L2 / L3 / XL MULTITALENTS

Within just a short time, the Multistar L3 has become one of the most successful star screen machines on the market. That's hardly surprising – it packs everything that modern screen technology has to offer into an overall length of just 11 m. One pass gives three fractions (L2: two fractions), wind sifting, and Fe separation if desired. With the machine going at full capacity, two wheel loaders have their hands full.

Yet everything runs quietly and smoothly, thanks to the electric drive with intelligent control unit and easy touch panel operation. On the XL and L3-L versions, an extended coarse screen boosts throughput for applications where coarse screening is the bottleneck, for example with fresh biomass.

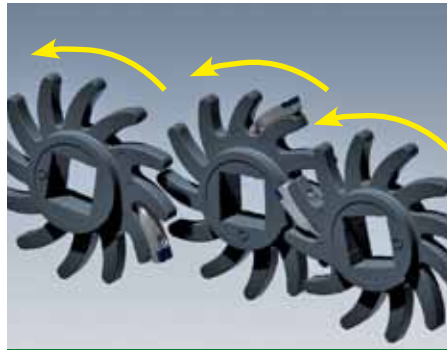




01

## Extremely efficient

High throughput plus low operating costs equals the highest operating efficiency. The hopper, feed system, and design and dimensions of the screen decks combine to form a compact unit with virtually unbeatable throughput. Effective wear protection of all parts in contact with material and an efficient diesel-electric drive system ensure the lowest operating costs.



02

## Always unclogged thanks to CLEANSTAR

The screen units are continually cleaned by the simple and efficient patented CLEANSTAR cleaning system. Each star has a wear-resistant cleaning finger that clears the screen gap to the surrounding stars on each rotation, so screening is always in season with Multistar star screens.



03

## Anything goes

A series of options makes the L3 a genuine all-rounder: Wind sifter for the coarse and medium fraction, magnetic rollers, and rolling fraction separator. Production can also be switched to just two fractions. Options like hopper overload sidewalls, central lubrication and pneumatically sprung axles increase ease of use.

## Technical specifications

	Multistar L2	Multistar L3	Multistar XL
<b>Drive</b>			
Diesel generator (kVA):	44	60	60
<b>Material feeding</b>			
Hopper volume (m³):	> 7	> 7	> 7
<b>Screen section</b>			
Coarse screen L x W (mm) / area (m²):	-	3200 x 1250 / 3.8	4000 x 1250 / 4.8
Fine screen L x W (mm) / area (m²):	5800 x 1250 / 7.2	5800 x 1250 / 7.2	5800 x 1250 / 7.2
<b>Dimensions</b>			
Transport dimension L x W x H (mm):	10750 x 2550 x 4000	11260 x 2550 x 4000	11850 x 2550 x 4000
<b>Throughput (dependent on material)</b>			
Throughput performance (m³/h):	up to 150	up to 180	up to 250



04

## For the big jobs

If high coarse-grain separation is what you need, the extra-large coarse screen surface is a big plus for the L3-L and XL. It boosts throughput as well as separation accuracy when screening coarsely-shredded biomass. Need things really coarse? The new wider stars in the coarse screen enable separation in the 120-150 mm range.



## HIGHLIGHTS



- » High-performance machines for large operations
- » Huge hopper and extremely wide discharge belts for ease of operation
- » High throughput with precise selectivity, even with moist materials
- » Simple star speed control at the screen deck, to change particle size in seconds



# XXL / XXXL TOP PERFORMANCE

The Multistar XXL and XXXL are the top of the line, top-performance star screens from Komptech. They are designed for the heaviest duty with the highest throughput, while retaining the benefits of mobility.

Heavy-duty components for continuous operation, large screen decks with wide discharge belts, and powerful yet very economical electric drive via diesel generator all keep things moving. The result is unbeatably low operating costs at full capacity production.

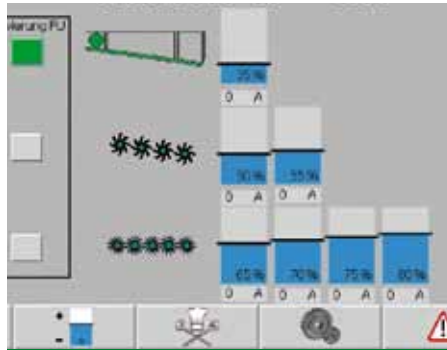




01

## Built to perform

The sheer scale makes it obvious - these machines are built for big volumes, more than one larger front-loader can keep up with. Luckily, the 12 m<sup>3</sup> (XXL) or 15 m<sup>3</sup> (XXXL) hopper can be filled from both sides. Extremely wide output conveyors make sure that what goes in, comes out without a hitch.



02

## From fine to coarse at the press of a button

Particle size can be controlled by varying the rotation speed of the star shafts. In just seconds the particle size can be changed within the range provided by the star size, using the touchscreen graphic control panel. The different star dimensions and arrangements cover screening sections from 8-150 mm.



03

## Effective wear protection

On all Multistar screeners, the screen units are kept continuously clean by carbide, ceramic or specially coated cleaning elements, as appropriate for the specific application. This keeps wear to a minimum, for economical operation.

## Technical specifications

	Multistar XXL	Multistar XXXL
<b>Drive</b>		
Diesel generator (kVA):	100	135
<b>Material feeding</b>		
Hopper volume (m <sup>3</sup> ):	> 12	> 15
<b>Screen section</b>		
Coarse screen L x W (mm) / area (m <sup>2</sup> ):	5100 x 1250 / 6.1	5100 x 1700 / 8.6
Fine screen L x W (mm) / area (m <sup>2</sup> ):	8900 x 1250 / 10.9	8910 x 1700 / 15.1
<b>Dimensions</b>		
Transport dimension L x W x H (mm):	13700 x 2550 x 4000	10750 x 3050 x 4000 (exceptional permission required)
<b>Throughput</b> (dependent on material)		
Throughput performance (m <sup>3</sup> /h):	up to 400	up to 500



04

## Full mobility

Although the XXL and XXXL can outperform many a stationary machine, the semi-trailer design makes them easy to move from point A to point B, so that nothing stands in the way of off-site use. Extend the supports, fold out the conveyors, and you're ready to run.



## HIGHLIGHTS



- » Designed to remove oversizes from commercial waste, bulky waste and waste wood
- » High throughput with low energy consumption
- » Contrary-resistant disc separator for coarse screening
- » High-selectivity star screen for fine screening



# L3 FLOWERDISC THE TRASH SPECIALIST

The Multistar L3 Flowerdisc is a noteworthy addition to the mobile screening options for bulky waste, commercial waste and waste wood. Using a combination of disc separator and star screen, it separates out a typically inert fine fraction and a medium and coarse fraction for refuse-derived fuel, all in just one operation.

Normally, a conveyor from an upstream shredder feeds the input material directly to the screen deck. The high-performance drive, 7 and 6-metre screen lengths on the contrary-resistant Flowerdisc, and highly selective star screen provide the right conditions for high throughput.





# MULTISTAR HOOK SIMPLY FLEXIBLE

The rugged, straightforward Multistar Hook star screen deck separates compost, bark, biomass, etc. into oversized and undersized particles, extremely reliably and with low noise levels. With its simple support base, it lifts on and off a truck bed for quick and flexible semi-mobile use.

When used in conjunction with a shredder, overlengths (shredded waste wood, green waste, rootstocks etc.) are effectively removed, for simple, cost-effective material treatment.

## HIGHLIGHTS



- » Quickly deployable with lift-off base
- » High throughput with precise selectivity, even with moist materials
- » Simple screen deck speed control changes particle size in seconds
- » Ideal for removing overlengths in conjunction with a shredder

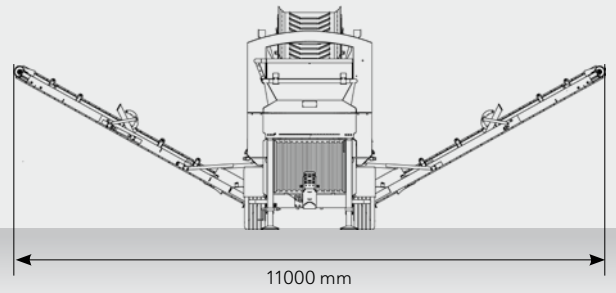
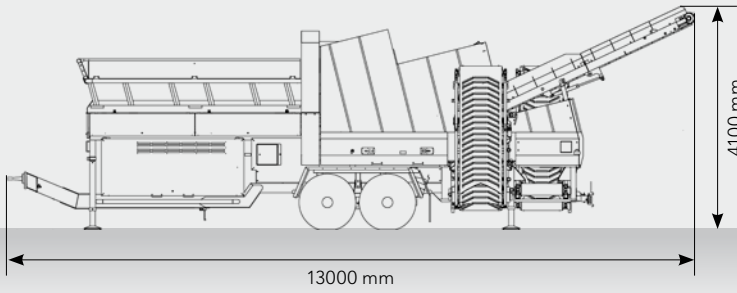


	Multistar Hook	Multistar M2	Multistar M3	Multistar L2	Multistar L3	Multistar XL	Multistar XXL	Multistar XXXL	Multistar L3 Flowerdisc
<b>Drive</b>									
Diesel generator (kVA):		48	48	44	60	60	100	135	60
Power input (kW):	12 - 27,5	34	46						
<b>Material feeding - feed hopper</b>									
Hopper volume (m³):		>5	>5	>7	>7	>7	>12	>15	
Filling length (mm):		4000	4000	3600	3600	3600	4800 / 5800	4800 / 5800	
Filling height (mm):		2800	2800	3500	3500	3500	3700	3700	
<b>Screen size L x W (mm) / area (m²)</b>									
Coarse screen:	6000 x 1000 / 6		2132 x 1138 / 2.4		3200 x 1250 / 3.8	4000 x 1250 / 4.8	5100 x 1250 / 6.1	5100 x 1700 / 8.6	Disc screen / 8.4
Fine screen:		4522 x 1138 / 5.1	3591 x 1138 / 4.1	5800 x 1250 / 7.2	5800 x 1250 / 7.2	5800 x 1250 / 7.2	8900 x 1250 / 10.9	8910 x 1700 / 15.1	Star screen / 7.2
<b>Screen section standard (mm)</b>									
Coarse particle:	>60...90	>30...60	> 60...90	> 60...90	> 60...90	> 60...90	60...90	> 60...90	> 60...90
Medium particle:			10...25 / 60...90		10...25 / 60...90	10...25 / 60...90	10...25 / 60...90	10...25 / 60...90	10...25 / 60...90
Fine particle:	0/60...90	0/30...60	0/10...25	0 / 60...90	0 / 10...25	0 / 10...25	0 / 10...25	0 / 10...25	0 / 10...25
<b>Material discharge max. discharge height (mm)</b>									
Coarse fraction:	3600	3350	4100	3000	3000	3000	3600	3600	2650
Medium fraction:			3200		3600	3600	3600	3600	3600
Fine fraction:	3300	3200	3200	3200	3200	3200	3200	3200	3200
<b>Dimensions (*exceptional permission required)</b>									
Transport dimension L x W x H (mm):	6700 x 2500 x 2700	11750 x 2550 x 4000	11500 x 2550 x 4000	10750 x 2550 x 4000	11260 x 2550 x 4000	11850 x 2550 x 4000	13700 x 2550 x 4000	10750 x 3050 x 4000*	11250 x 2550 x 4000
Working dimension L x W x H (mm):	6350 x 4000 x 4000	15000 x 7000 x 4000	13000 x 11000 x 4100	14050 x 6300 x 4000	12800 x 6300 x 4000	16950 x 6500 x 4100	17000 x 6500 x 4000	17000 x 7000 x 4580	12900 x 7200 x 4000
Weight (t):	~ 4.5	~ 17.0	~ 17.0	~ 16.0	~ 19.0	~ 21.0	~ 26.0	~ 30.0	~ 20.0
<b>Throughput (dependent on material)</b>									
Throughput performance (m³/h):	up to 250	up to 100	up to 120	up to 150	up to 180	up to 250	up to 400	up to 500	up to 40 t/h
<b>Options</b>									

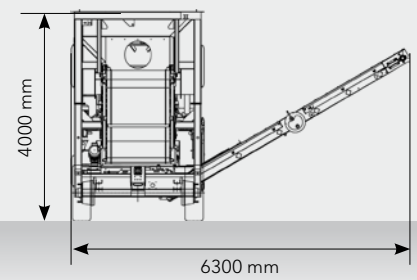
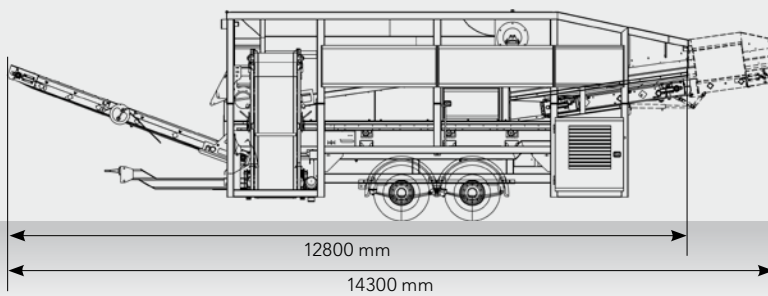
Different screen options for coarse and fine screen, magnetic drum, discharge belt for rolling pieces, windsifter, diesel generator (M-version) towing and chassis options, radio remote control, central lubrication and more



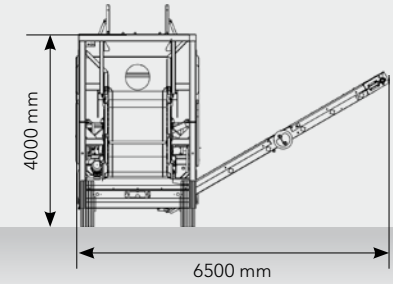
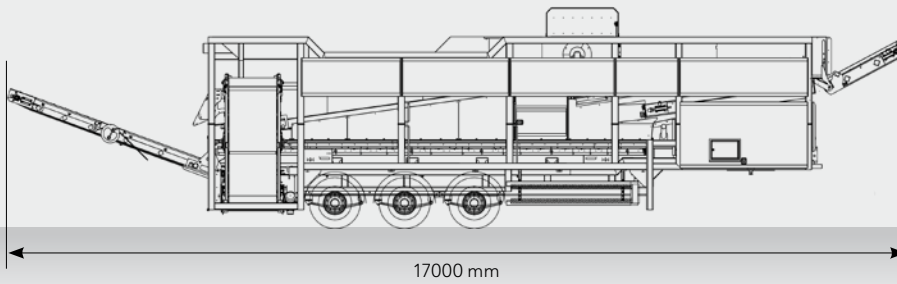
## MULTISTAR M3



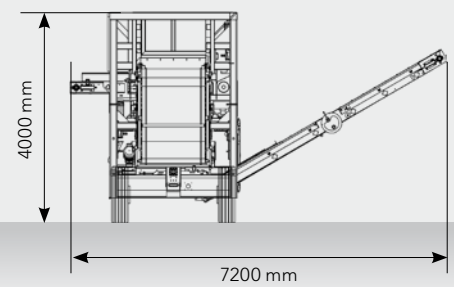
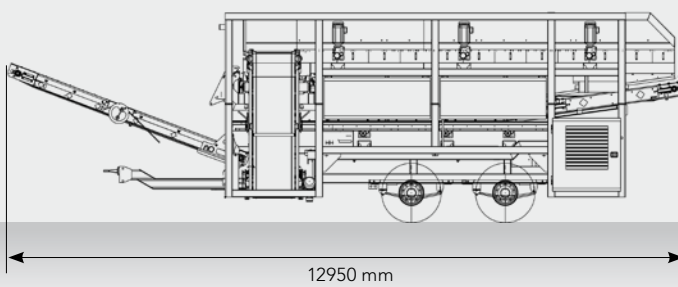
## MULTISTAR L3



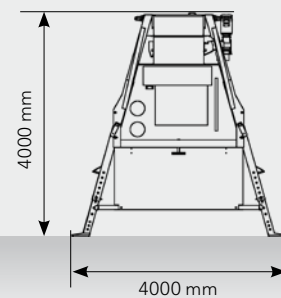
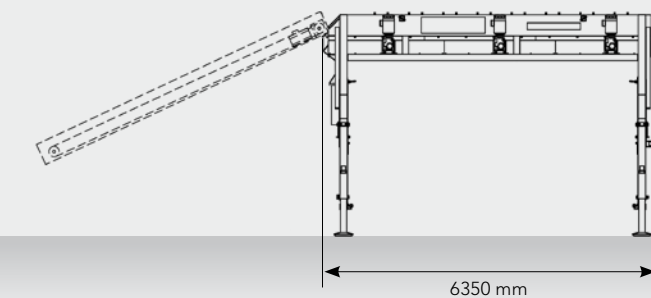
## MULTISTAR XXL



## MULTISTAR L3 FLOWERDISC



## MULTISTAR HOOK



# TECHNOLOGY FOR A BETTER **ENVIRONMENT**



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