



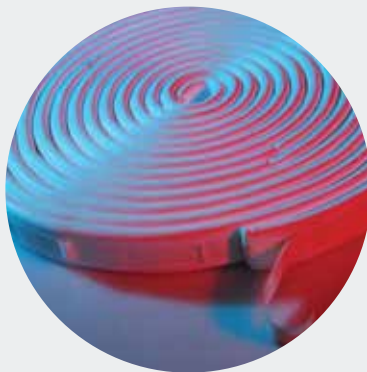
*J D Jones & Co (P) Ltd*

**pacmaan<sup>®</sup>**  
Analysing • Providing • Serving

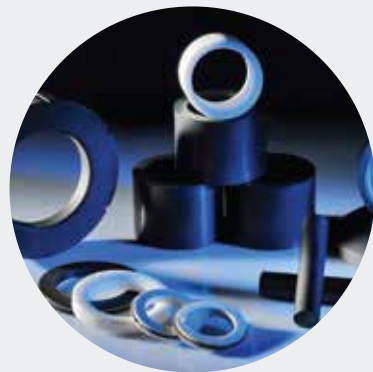
# Specialised Sealing Products for the Valve Industry



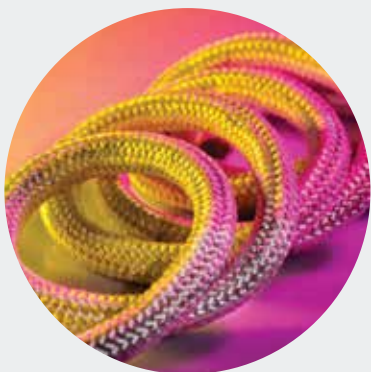
Compression Packing



Expanded PTFE Products



Industrial Polymer Products



Insulations



Graphite Sealing Products



Low Emission Packing



Speciality Lubricant



*J D Jones & Co (P) Ltd*



————— **Compression Packing** —————



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## Pacmaan<sup>®</sup> 1T

Flax braided packing impregnated with petroleum jelly

- Packings ideal for rotary pump applications
- A solid plait packing specially finished yielding a soft readily comfortable material

*The plaiting technique ensures complete lubrication during production, fibre by fibre, thus giving maximum service life*

<b>Service Media and Conditions</b>	Water, lubricating oil, crude oil, bilge water and sludge
<b>Temperature</b>	-10°C to 120°C
<b>Pressure</b>	100 bar (static), 12 bar (rotary), 50 bar (reciprocating)
<b>Shaft Speed</b>	10 m/sec (rotary), 1.5 m/sec (reciprocating)
<b>pH</b>	5 to 9
<b>Applications</b>	Hot/cold water pumps, bilge oil pumps



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## Pacmaan® Code 03740

Synthetic fibre braided packing having cross braided of abrasion resistant aramid staple fibre impregnated with PTFE and break-in lubricant

- A special purpose packing with abrasion resistance, thermal stability, flexibility and good chemical resistance
- Thorough impregnation of PTFE provides trouble free start-up and low friction operation
- A high density packing good for crystallising media

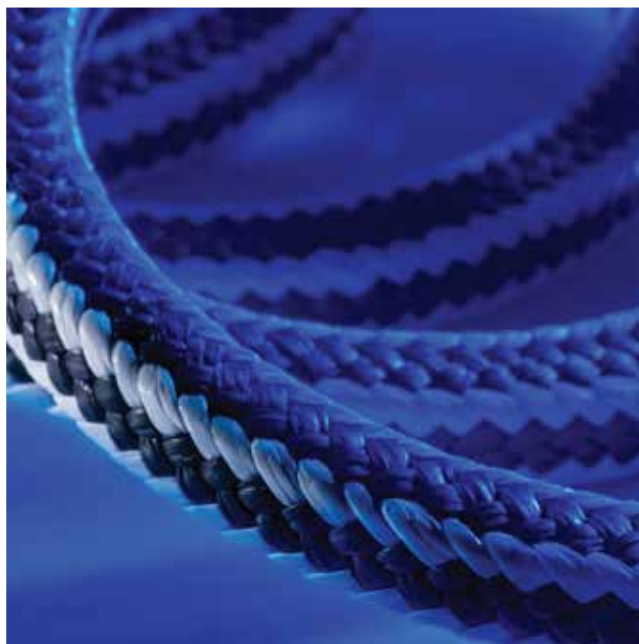
*A dense non-contaminating packing with excellent volume stability—requires less frequent gland adjustments*

<b>Service Media and Conditions</b>	Juice, stock, chilled water, cooling water, hot water, solvent, mild abrasives, brine, salt water, mild acid and alkali, slurry, mud slurry, fly ash water, sewage, raw water, chemical slurries etc
<b>Temperature</b>	-260°C to 260°C
<b>Pressure</b>	25 bar (rotary)
<b>Shaft Speed</b>	15 m/sec (rotary)
<b>pH</b>	1 to 13





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## Pacmaan<sup>®</sup> Code 107463

Multi-yarn packing made from pure PTFE fibre corners with expanded PTFE graphite fibres at the running surface in interlock braid

- The expanded PTFE graphited fibres yarns at the base provide excellent chemical resistance, low co-efficient of friction and virtually eliminate shaft scoring
- The pure PTFE fibre yarns at the corners provide superb extrusion, abrasion and pressure resistance, allowing the packing to be used at very high pressure conditions

*Specially designed for the paper industry for black liquor digesters, agitators*

<b>Service Media and Conditions</b>	Black liquor digester, white liquor, green liquor, pulp cookers, washers, agitators etc
<b>Temperature</b>	-200°C to 280°C
<b>Pressure</b>	28 bar (rotary)
<b>Shaft Speed</b>	9 m/sec (rotary)
<b>pH</b>	2 to 13



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## Pacmaan<sup>®</sup> Code 1785HA

Expanded PTFE graphited gland packing encapsulated over aramid fibre on each yarn

- A true multi-service packing
- Excellent chemical resistance, heat dissipating, sliding velocity, low co-efficient of friction properties of PTFE graphite and abrasion, pressure resistance and mechanical strength of aramid
- Each expanded PTFE graphite yarn is encapsulated over aramid filament yarn
- A soft supple packing, non-abrasive in nature and gentle on the shaft

*Ideal for mild slurry, chemical resistance*

<b>Service Media and Conditions</b>	Chemical and abrasive slurries, liquor pumps, washers, sewage, solvents, aggressive fluids, water, boiler feed water, hot water, condensate, oils and greases, steam, paper mill applications etc
<b>Temperature</b>	-100°C to 280°C
<b>Pressure</b>	250 bar (static), 35 bar (rotary), 250 bar (reciprocating)
<b>Shaft Speed</b>	25 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Pumps, valves, mixers, agitators, plunger pumps



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## Pacmaan<sup>®</sup> Code 1785HC

Expanded PTFE graphited gland packing encapsulated over carbon fibre on each yarn

- A true multi-service packing
- Excellent chemical resistance, heat dissipating, sliding velocity, low co-efficient of friction properties of PTFE graphite and the abrasion, pressure resistance and mechanical strength of carbon
- Each expanded PTFE graphite yarn is encapsulated over carbon filament yarn
- A soft supple packing, non-abrasive in nature and gentle on the shaft

*Ideal for mild slurry, chemical resistance*

<b>Service Media and Conditions</b>	Chemical and abrasive slurries, liquor pumps, washers, sewage, solvents, aggressive fluids, water, boiler feed water, hot water, condensate, oils and greases, steam, paper mill applications etc
<b>Temperature</b>	-100°C to 280°C
<b>Pressure</b>	275 bar (static), 40 bar (rotary), 260 bar (reciprocating)
<b>Shaft Speed</b>	25 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Pumps, valves, mixers, agitators, plunger pumps



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## Pacmaan<sup>®</sup> Code 1785HG

Expanded PTFE graphited Gland Packing encapsulated over Glass fibre on each yarn

- A true multi-service packing
- Excellent chemical resistance, heat dissipating, sliding velocity, low coefficient of friction properties etc of PTFE graphite, with the abrasion, pressure resistance and mechanical strength of glass fibre
- Each expanded PTFE graphite yarn is encapsulated over glass fibre
- A soft, supple packing, non-abrasive in nature and gentle on the shaft

*Ideal for mild slurry, chemical resistance*

<b>Service Media and Conditions</b>	Chemical and abrasive slurries, liquor pumps, washers, sewage, solvents, aggressive fluids, water, boiler feed water, hot water, condensate, oils and greases, steam, paper mill applications etc
<b>Temperature</b>	280°C
<b>Pressure</b>	275 bar (static), 40 bar (rotary)
<b>Shaft Speed</b>	20 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Pumps, valves, mixers, agitators, plunger pumps





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## Pacmaan<sup>®</sup> Code 17865 and 18765 Black and White Packing

A special combination of man-made fibre packing specially designed for the paper industry in interlock braid

- Manufactured from the super self-lubricated man-made fibre yarns to give a soft, resilient packing with high dimensional strength, low co-efficient of friction, good chemical resistance and inertness to most media
- Possessing excellent chemical resistance and heat dissipation properties
- Ideal for pump handling liquor, pulp and chemical
- A superb choice of rotary as well as static equipment packing needs
- Excellent dimensional stability

*Does not burn on start-up, low co-efficient of friction*

<b>Service Media and Conditions</b>	White liquor, green liquor, pulp washer, highly corrosive chemicals
<b>Temperature</b>	-200°C to 280°C
<b>Pressure</b>	25 bar (rotary), 150 bar (reciprocating)
<b>Shaft Speed</b>	5 m/sec (rotary), 2 m/sec (reciprocating)
<b>pH</b>	0 to 14
<b>Applications</b>	Pumps handling liquors, pulp washers, vacuum pumps, chemical pumps etc



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## Pacmaan<sup>®</sup> Code 719722

A cartridge set with combination of pre-pressed packing rings made from expanded graphite yarn with reinforcement of carbon yarn and carbon fibre yarn

- The most advanced technology cartridge set designed for the paper industry
- Carbon fibre having low co-efficient of friction enables it to run almost frictionless without any heat build up or fatigue

*Ideal for refiners, fan pumps, stock pumps, chests, mixers, agitators*

<b>Temperature</b>	-240°C to 650°C
<b>Pressure</b>	300 bar (static), 30 bar (rotary), 200 bar (reciprocating)
<b>Shaft Speed</b>	20 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Pumps



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## Pacmaan<sup>®</sup> Code 75158

Expanded graphited PTFE yarn braided packing with reinforcement of carbon fibre yarn in the outside corner

- A unique construction packing specially designed for slurry application
- This unique construction ensures easy removal during repack resulting in reduced downtime
- Low friction, less heat generation, non-abrasive, saves shaft and shaft sleeve
- Widely used in the paper industry and mines

*Does not cause shaft wear due to self-lubricating property of PTFE and graphite*

<b>Service Media and Conditions</b>	Bauxite slurries, bottom ash slurry pumps, mineral handling and slurries, tailing pump and other slurry processing applications
<b>Temperature</b>	-200°C to 280°C
<b>Pressure</b>	25 bar (rotary)
<b>Shaft Speed</b>	18 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Pumps, agitators, mixers



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## Pacmaan<sup>®</sup> Code 870020

Special combination packing set for liquor circulation pump

- An excellent solution to reduce sealing water in liquor circulation pump
- PTFE based end rings with a unique reinforcement inside and impregnation with a special anti-frictional, temperature resistance compound enable the packing set to exhibit excellent chemical resistance, heat dissipating, sliding velocity, low co-efficient of friction properties etc, at the same time, the abrasion, pressure resistance and mechanical strength
- Special intermediate ring to run 'dry'
- A soft supple packing, non-abrasive in nature and gentle on the shaft

*Ideal for aggressive chemical fluids with the presence of solid particles*

<b>Service Media and Conditions</b>	Chemical and abrasive slurries, liquor circulation pumps, washers, sewage, solvents, aggressive fluids, black liquor, boiler feed water, hot water, condensate, oils and greases, steam, paper mill applications etc
<b>Temperature</b>	-200°C to 260°C
<b>Pressure</b>	30 bar (rotary)
<b>Shaft Speed</b>	20 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Pumps





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## Pacmaan® COPPER PACKING

Braided packing made from copper wire

- Braided from soft annealed copper
- Designed for use as a bull ring or anti-extrusion ring

*Dense but flexible nature makes it easy to cut and instal*

<b>Temperature</b>	820°C
<b>Pressure</b>	75 bar (static)
<b>Shaft Speed</b>	5 m/sec (rotary)
<b>pH</b>	4 to 10
<b>Applications</b>	Pump and valve packing.



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup>

High grade expanded PTFE graphited yarn packing in interlock braid made from a special oil-free G2 fibre yarn from WL Gore

- A superb choice for rotary as well as static equipment packing needs
- Made from expanded PTFE graphite yarns having excellent chemical resistance and heat dissipation properties
- The packing is proven over a wide range of applications including feed water, harsh chemicals, caustics, oils, mild slurries etc
- Excellent dimensional stability
- Does not burn on start-up, low co-efficient of friction

*Available in rope and ring forms*

<b>Service Media and Conditions</b>	Bleach washer, caustics, non-abrasive liquor, DM water, condensate, acids, hypo, boiler feed water, fuel-lube oil, acid and alkali regeneration
<b>Temperature</b>	-200°C to 280°C
<b>Pressure</b>	250 bar (static), 30 bar (rotary), 150 bar (reciprocating)
<b>Shaft Speed</b>	22 m/sec (rotary), 3 m/sec (reciprocating)
<b>pH</b>	0 to 14
<b>Applications</b>	Pumps, agitators, mixers, valves, washers. Specially designed for Plunger pump.



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## Pacmaan<sup>®</sup> NA 20747

Special high performance packing of expanded graphite braid with meta-aramid corners, PTFE lubricant impregnated

- Ideal packing for services ensuring strength and resistance to corner extrusion
- Excellent abrasion resistance with high thermal conductivity

*Very gentle on shaft surfaces without hardening*

<b>Service Media and Conditions</b>	Petrochemical industry, chemical industry, power plant etc
<b>Temperature</b>	-100°C to 260°C
<b>Pressure</b>	80 bar (static), 60 bar (rotary)
<b>Shaft Speed</b>	40 m/sec (rotary)
<b>pH</b>	1 to 13
<b>Applications</b>	Centrifugal pumps, compressors, blowers, fans etc



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## Pacmaan<sup>®</sup> GNA 441

A high grade high "tex" glass fibre braided packing impregnated with PTFE and high viscosity special grade lubricant

- A universal packing made from high quality glass fibre yarn impregnated with PTFE and lubricant
- Very low co-efficient of friction, high thermal conductivity and sliding velocity, runs almost frictionless without any shaft wear
- Excellent resistance to chemicals and hardening thereof

*Available both in rope and pre-compressed ring form*

<b>Service Media and Conditions</b>	Wide range of chemical, oil, solvents, mild acids and alkalis
<b>Temperature</b>	-100°C to 280°C
<b>Pressure</b>	150 bar (static), 15 bar (rotary), 20 bar (reciprocating)
<b>Shaft Speed</b>	15 m/sec (rotary)
<b>pH</b>	2 to 12
<b>Applications</b>	Valves, pumps, chemical processing and paint, food and brewing, pharmaceutical, petrochemical





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## Pacmaan<sup>®</sup> NA 442

A high grade high tex glass fibre braided packing impregnated with PTFE, graphite and high viscosity special grade lubricant

- A universal packing made from high quality glass fibre yarn impregnated with PTFE and lubricant
- Very low co-efficient of friction, high thermal conductivity and sliding velocity , runs almost frictionless without any shaft wear
- Graphite impregnation improves chemical resistance and also acts as blocking agent
- Excellent resistance to chemicals and hardening thereof

*Available both in rope and pre-compressed ring form*

<b>Service Media and Conditions</b>	Wide range of chemical, oil, solvents, mild acids and alkalis
<b>Temperature</b>	-50°C to 450°C
<b>Pressure</b>	150 bar (static), 20 bar (rotary), 30 bar (reciprocating)
<b>Shaft Speed</b>	8 m/sec (rotary), 3 m/sec (reciprocating)
<b>pH</b>	2–12
<b>Applications</b>	Valves, pumps, chemical processing and paint, food and brewing, pharmaceutical, petrochemical



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## Pacmaan<sup>®</sup> NA 701

Expanded graphite braided gland packing reinforced with Inconel wire

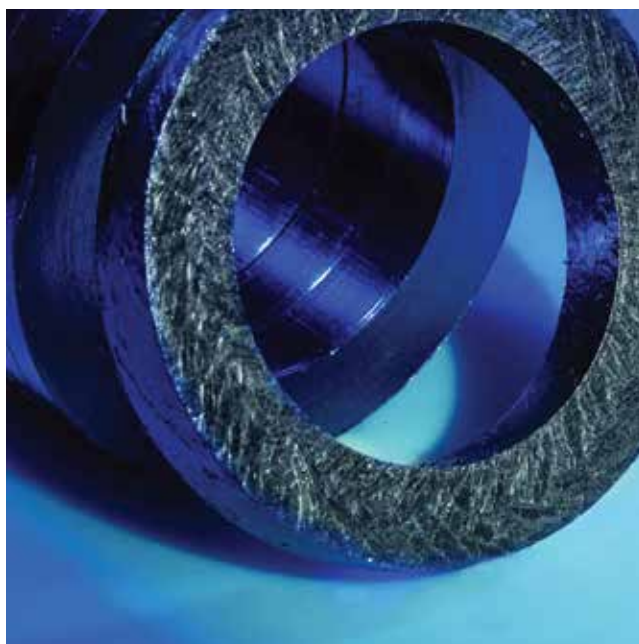
- Ideal for superheated and saturated steam, hydrocarbons and chemicals valves
- Incorporated with a sacrificial metal corrosion inhibitor to protect the shaft from galvanic corrosion
- Passed fugitive emissions tests as per shell SPE MESC 77/312 (as top and bottom rings with NA 707 packing), Class B
- Approved and standardised by leading valve makers as well as end users across the globe

*Available in rope and ring form*

<b>Service Media and Conditions</b>	Superheated and saturated steam, all non-oxidising liquids and gases, hydrocarbons, dyes and chemicals, fuel oil and lube oil etc
<b>Temperature</b>	-240°C to 650°C
<b>Pressure</b>	450 bar (static)
<b>Shaft Speed</b>	1 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Valves



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## Pacmaan<sup>®</sup> NA 701 + 707

Special combination packing set of braided and die moulded flexible graphite rings

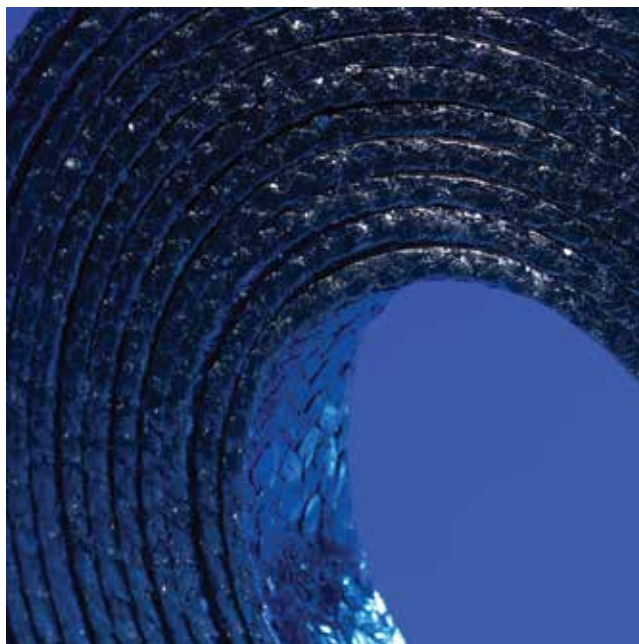
- Top and bottom anti-extrusion rings of braided flexible graphite with Inconel wire (single oblique cut)
- Intermediate rings of die moulded graphite (endless/2 halves)
- Ideal for frequently operated control valves handling superheated and saturated steam, hydrocarbons and chemicals valves
- The set has superb resilience

*Ready to use ring sets*

<b>Service Media and Conditions</b>	Superheated and saturated steam, all non-oxidising liquids and gases, hydrocarbons, dyes and chemicals, fuel oil and lube oil etc
<b>Temperature</b>	-200°C to 540°C
<b>Pressure</b>	350 bar (static)
<b>pH</b>	0 to 14
<b>Applications</b>	Valves



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## Pacmaan<sup>®</sup> NA 701T

Expanded graphite braided gland packing reinforced with Inconel wire, calendared in the form of tape

- Versatile gasket material for wide range of application
- Ideal for superheated and saturated steam, hydrocarbons and chemicals
- Incorporated with a sacrificial metal corrosion inhibitor to protect from galvanic corrosion
- Can be used throughout plant because of easiness on installation, can be made to any dimension and shape and high thermal and chemical resistance

*Available with and without self-adhesive backing*

<b>Service Media and Conditions</b>	Superheated and saturated steam, all non-oxidising liquids and gases, hydrocarbons, dyes and chemicals, fuel oil and lube oil etc
<b>Temperature</b>	-240°C to 650°C
<b>Pressure</b>	450 bar (static)
<b>Shaft Speed</b>	1 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Metallic and non-metallic flanges, lids, covers, reactors, autoclaves, heaters etc





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## Pacmaan<sup>®</sup> NA 702

Expanded pure graphite braided gland packing with a non-metallic reinforcement

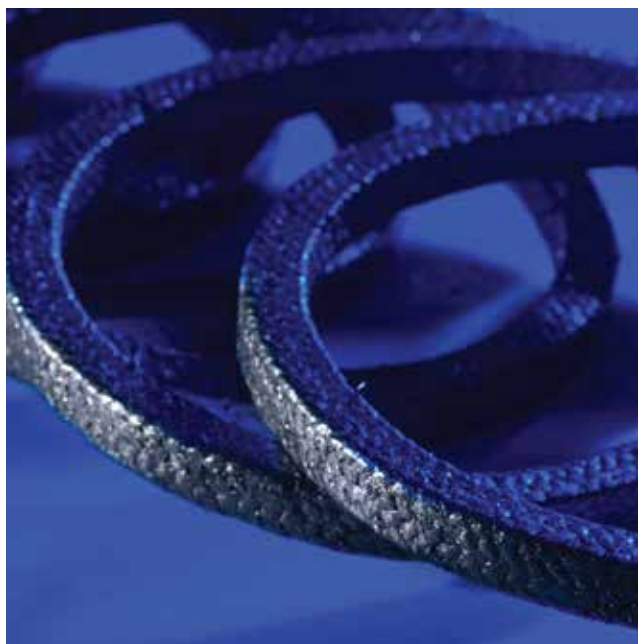
- Low cost expanded pure graphite packing
- Dissipates heat without chemical hardening, resistant to practically all chemicals
- Dense pliable packing with a high degree of resiliency
- Does not cause shaft wear
- Reduces flush water consumption

*Use of preformed rings recommended for optimum performance*

<b>Service Media and Conditions</b>	DM Water and condensate, non-oxidising liquids and gases, dyes and chemicals, lube oil etc
<b>Temperature</b>	-200°C to 650°C
<b>Pressure</b>	280 bar (static), 30 bar (rotary)
<b>Shaft Speed</b>	20 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Pumps, low pressure valves



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## Pacmaan<sup>®</sup> NA 702R

Expanded pure graphite braided gland packing each yarn reinforced with carbon fibre and cotton fibre inside and with inside corner of carbon fibre yarn

- An excellent expanded pure graphite packing with carbon yarn reinforcement as well as carbon yarn inside the braided construction
- Dissipates heat without chemical hardening, resistant to practically all chemicals
- Withstands higher shaft speeds while limiting friction and also prevents extrusion
- Does not cause shaft wear

*Reduces flush water consumption*

<b>Service Media and Conditions</b>	DM Water and condensate, non-oxidising liquids and gases, hot water circulation, dyes and chemicals, lube oil, black liquor, white and green liquor, refiners, agitators etc
<b>Temperature</b>	-200°C to 650°C
<b>Pressure</b>	275 bar (static)
<b>Shaft Speed</b>	20 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Pumps, low pressure valves



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## Pacmaan<sup>®</sup> NA 716

A high grade multipurpose braided packing made from expanded graphite yarns with an aramid filament reinforcement in interlock braid

- One of the most versatile packings for plant wide pump and valve use
- The unique structure of the packing, made from expanded graphite yarns having a core of high grade aramid filament, make the packing one of the best performers for pumping applications
- Fantastic dry running capabilities—the packing is almost 'flushless'
- Proven for regular as well as aggressive fluid services, including FCC catalyst, cooling water, pulp etc
- A corrosion inhibitor prevents stem pitting

*Available rope and ring form*

<b>Service Media and Conditions</b>	Caustics, water, steam, FCC catalyst and bottom slurry (refinery), DM water, cooling water, all hydrocarbons, non-abrasive liquor, condensate, hypo, boiler feed water, fuel-lube oil, acid and alkali regeneration pumps
<b>Temperature</b>	-200°C to 350°C
<b>Pressure</b>	175 bar (static), 35 bar (rotary)
<b>Shaft Speed</b>	20 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Pumps, valves



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## Pacmaan<sup>®</sup> NA 717

Expanded pure graphite braided gland packing with a non-metallic reinforcement impregnated with PTFE and inert lubricants

- Low cost expanded pure graphite packing
- Dissipates heat without chemical hardening, resistant to practically all chemicals
- Dense, pliable packing with a high degree of resiliency
- Does not cause shaft wear
- Reduces flush water consumption

*Use of preformed rings recommended for optimum performance*

<b>Service Media and Conditions</b>	DM water and condensate, non-oxidising liquids and gases, dyes and chemicals, lube oil etc
<b>Temperature</b>	-200°C to 650°C
<b>Pressure</b>	280 bar (static), 30 bar (rotary)
<b>Shaft Speed</b>	20 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Pumps, low pressure valves





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## Pacmaan<sup>®</sup> NA 718

Expanded pure graphite braided packing with a reinforcement of high grade structural carbon yarns in interlock braid

- A true multipurpose packing for a wide range of applications
- High grade carbon yarns criss-cross the packing to emerge at the corners, providing mechanical strength and extrusion resistance to the packing
- Excellent dry running capabilities reduce plant wide flush water use
- A corrosion inhibitor prevents stem pitting
- The packing fills into worn out surfaces and pittings, thus cutting out leak paths.
- Dissipates heat without chemical hardening, resistant to chemicals

*Available in rope and ring forms*

<b>Service Media and Conditions</b>	Caustics, water, steam, FCC catalyst and bottom slurry (refinery), DM water, all hydrocarbons, non-abrasive liquor, condensate, hypo, boiler feed water, fuel-lube oil, acid and alkali regeneration pumps
<b>Temperature</b>	-240°C to 650°C
<b>Pressure</b>	300 bar (static), 30 bar (rotary), 200 bar (reciprocating)
<b>Shaft Speed</b>	20 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Pumps, valves



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## Pacmaan<sup>®</sup> NA 719

A high grade multipurpose braided packing made from expanded pure graphite yarns with a carbon core and high grade structural carbon corners, in interlock braid

- One of the most versatile packings for plant wide pump and valve use
- The unique structure of the packing, made from expanded graphite yarns having a core of high grade carbon yarns, further reinforced with outside corners of carbon yarns, make the packing one of the best performers for pumping applications
- Fantastic dry running capabilities—the packing is almost 'flushless'
- Proven for regular as well as aggressive fluid services, including FCC catalyst, cooling water, pulp etc
- A corrosion inhibitor prevents stem pitting

*Available in rope and ring form*

<b>Service Media and Conditions</b>	Caustics, water, steam, FCC catalyst and bottom slurry (refinery), DM water, all hydrocarbons, non-abrasive liquor, condensate, hypo, boiler feed water, fuel-lube oil, acid and alkali regeneration pumps
<b>Temperature</b>	-240°C to 650°C
<b>Pressure</b>	345 bar (static), 35 bar (rotary)
<b>Shaft Speed</b>	25 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Pumps, valves



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## Pacmaan<sup>®</sup> NA 720

A high grade multipurpose braided packing made from expanded pure graphite yarns with a carbon core in interlock braid

- One of the most versatile packings for plant wide pump and valve use
- The unique structure of the packing, made from expanded graphite yarns having a core of high grade carbon yarns, make the packing one of the best performers for pumping applications
- Fantastic dry running capabilities—the packing is almost 'flushless'
- Proven for regular as well as aggressive fluid services, including FCC catalyst, cooling water, pulp etc
- A corrosion inhibitor prevents stem pitting

*Available in rope and ring form*

<b>Service Media and Conditions</b>	Caustics, water, steam, FCC catalyst and bottom slurry (refinery), DM water, all hydrocarbons, non-abrasive liquor, condensate, hypo, boiler feed water, fuel-lube oil, acid and alkali regeneration pumps
<b>Temperature</b>	-240°C to 650°C
<b>Pressure</b>	70 bar (static), 25 bar (rotary)
<b>Shaft Speed</b>	25 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Pumps, valves



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## Pacmaan<sup>®</sup> NA 721

A unique carbon fibre packing having a core of expanded graphite packing having an Inconel wire mesh jacketing over each yarn

- One of the best sealing solutions for all types of high temperature-high pressure valves, specially control valves
- The core consists of expanded graphite yarns, each covered with an Inconel wire mesh and also reinforced with multiple Inconel wires inside
- The core is overbraided with high strength-low friction carbon yarns
- The packing is finally finished with corrosion inhibitors, graphite and blocking agents
- A rugged packing that does not disintegrate on cutting, provides a leak free performance and can be removed with ease

*Available in rope and ring form*

<b>Service Media and Conditions</b>	Superheated and saturated steam, all non-oxidising liquids and gases, hydrocarbons, dyes and chemicals, fuel oil and lube oil etc
<b>Temperature</b>	-240°C to 650°C
<b>Pressure</b>	300 bar (static)
<b>pH</b>	0 to 14
<b>Applications</b>	Valves, control valves



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## Pacmaan<sup>®</sup> NA 722

A high grade multipurpose braided packing made from expanded pure graphite yarns reinforced with carbon fibre, finally jacketed with carbon fibre

- One of the most versatile packings for plant wide pump and valve use
- The unique structure of the packing, made from expanded graphite yarns having a core of high grade carbon yarns, make it one of the best performers for pumping applications
- Fantastic dry running capabilities—the packing is almost 'flushless'
- Proven for regular as well as aggressive fluid services, including FCC catalyst, cooling water, pulp etc

*A corrosion inhibitor, prevents stem pitting*

<b>Service Media and Conditions</b>	Caustics, water, steam, FCC catalyst and bottom slurry (refinery), DM water, all hydrocarbons, non-abrasive liquor, condensate, hypo, boiler feed water, fuel-lube oil, acid and alkali regeneration pumps
<b>Pressure</b>	150 bar (static)
<b>Shaft Speed</b>	25 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Pumps, Valves.





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## Pacmaan<sup>®</sup> NA 730

Synthetic fibre interlock braided packing impregnated with PTFE and break-in lubricant

- A general purpose packing with good chemical resistance and high tensile strength
- Thorough impregnation of PTFE provides trouble free start-up and low friction operation
- A high density packing good for crystallising media
- A filament core provides mechanical strength and dimensional stability
- Widely used for knife gate valves

*Preformed rings available*

<b>Service Media and Conditions</b>	Water, chilled water, cooling water, solvent, mild abrasives, brine, salt water, mild acid and alkali, foodstuff etc
<b>Temperature</b>	-100°C to 260°C
<b>Pressure</b>	100 bar (static), 20 bar (rotary), 80 bar (reciprocating)
<b>Shaft Speed</b>	12 m/sec (rotary)
<b>pH</b>	2 to 12
<b>Applications</b>	Pumps and valves, knife gate valves



*J D Jones & Co (P) Ltd*

## Pacmaan<sup>®</sup> NA 730SC

Synthetic fibre interlock braided packing impregnated with PTFE and break-in lubricant with a solid silicone rubber core

- A general purpose packing with good chemical resistance and high tensile strength
- Thorough impregnation of PTFE provides trouble free start-up and low friction operation
- A high density packing good for crystallising media
- A filament core provides mechanical strength and dimensional stability
- Widely used for knife gate valves

*Preformed rings available*

<b>Service Media and Conditions</b>	Water, chilled water, cooling water, solvent, mild abrasives, brine, salt water, mild acid and alkali, foodstuff etc
<b>Temperature</b>	-100°C to 260°C
<b>Pressure</b>	20 bar (rotary), 80 bar (reciprocating)
<b>Shaft Speed</b>	10 m/sec (rotary)
<b>pH</b>	2 to 12
<b>Applications</b>	Pumps and valves, knife gate valves



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 731

Synthetic fibre interlock braided packing impregnated with PTFE

- A general purpose packing with good chemical resistance and high tensile strength
- Thorough impregnation of PTFE provides trouble free start-up and low friction operation
- A high density packing good for crystallising media
- A filament core provides mechanical strength and dimensional stability

*Preformed rings available*

<b>Service Media and Conditions</b>	Water, chilled water, cooling water, solvent, mild abrasives, brine, salt water, mild acid and alkali, foodstuff etc
<b>Temperature</b>	-100°C to 260°C
<b>Pressure</b>	100 bar (static), 30 bar (rotary), 85 bar (reciprocating)
<b>Shaft Speed</b>	12 m/sec (rotary)
<b>pH</b>	2 to 12
<b>Applications</b>	Pumps and valves in water industry, distilleries, pulp and paper mills



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 731CC

A high grade unconventional braided packing made from acrylic fibre yarns with PTFE impregnation and break-in lubricant having copper wire on outer corners in interlock braid

- Latest development for knife gate valve industry replacing conventional packing set of acrylic fibre or PTFE braided packing with copper wire braided anti-extrusion ring at top and bottom
- The unique structure of the packing makes it ideal in terms of heavy duty corrosion and abrasion resistance for the toughest liquid slurry and dry material handling applications
- Copper wire on the corners eliminates distortion under maximum differential pressure while an acrylic fibre PTFE impregnated face ensures tight sealing
- Copper, being very soft and ductile, reduces wear and tear

0 to 14

<b>Temperature</b>	-100°C to 280°C
<b>Pressure</b>	140 bar (static), 28 bar (rotary), 100 bar (reciprocating)
<b>Shaft Speed</b>	12 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Knife edge gate valves for slurry lines, sludge and viscous media handling, pulp and paper stock lines, dry solid and powder handling, high temperature gas lines etc



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 732

Synthetic fibre interlock braided packing impregnated with graphite dispersion

- A general purpose packing with good chemical resistance and high tensile strength
- Thorough impregnation of graphite enhances the chemical resistance and effective sealing provides trouble free start-up and low friction operation

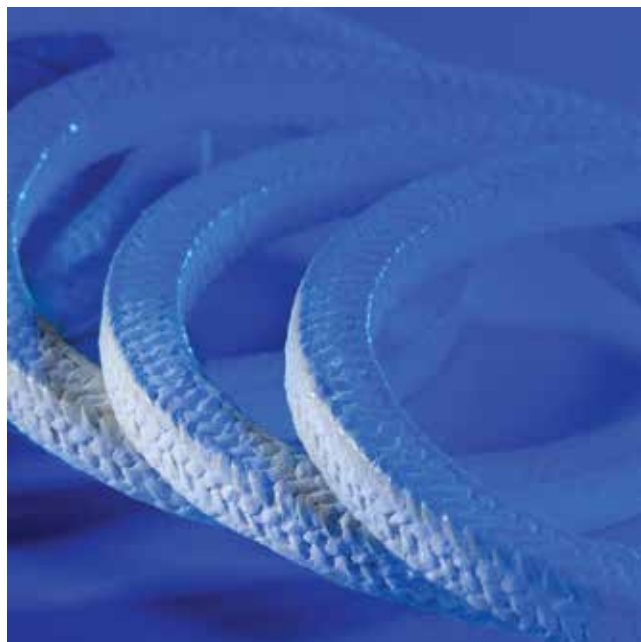
*A filament core provides mechanical strength and dimensional stability*

<b>Service Media and Conditions</b>	Water, chilled water, cooling water, solvent, mild abrasives, brine, salt water, mild acid and alkali, foodstuff etc
<b>Temperature</b>	-100°C to 260°C
<b>Pressure</b>	100 bar (static), 30 bar (rotary), 20 bar (reciprocating)
<b>Shaft Speed</b>	12 m/sec (rotary)
<b>pH</b>	4 to 10
<b>Applications</b>	Pumps and valves in pulp and paper mills





*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 733

Acrylic fibre braided packing with para aramid fibre corners impregnated with PTFE and inert lubricant

- A special purpose packing for slurries with excellent elastic recovery properties
- Para aramid fibre on the corners enhances strength and chemical resistance
- Thorough impregnation of PTFE provides trouble free startup and low friction operation
- Easy to fit, easy to cut, doesn't heat up much

*A non-staining and non-abrasive packing, can be used for high speed applications*

<b>Service Media and Conditions</b>	Mining, sugar plant, pulp and paper industry, river water pumping
<b>Temperature</b>	260°C
<b>Pressure</b>	200 bar (static)
<b>Shaft Speed</b>	22 m/s (rotary)
<b>pH</b>	1 to 13
<b>Applications</b>	Pumps



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 733A

Acrylic fibre braided packing with aramid fibre corners impregnated with PTFE and inert lubricant

- A special purpose packing for slurries with excellent elastic recovery properties
- Aramid fibre on the corners enhances strength and chemical resistance
- Thorough impregnation of PTFE provides trouble free startup and low friction operation
- Easy to fit, easy to cut, doesn't heat up much

*A non-staining and non-abrasive packing, can be used for high speed applications*

<b>Service Media and Conditions</b>	Mining, sugar plant, pulp and paper industry, river water pumping
<b>Temperature</b>	260°C
<b>Pressure</b>	200 bar (static)
<b>Shaft Speed</b>	22 m/s (rotary)
<b>pH</b>	1 to 13
<b>Applications</b>	Pumps



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 733KC

Synthetic (acrylic) fibre braided packing (on the faces) with Kynol fibre corners impregnated with PTFE and inert lubricant with a core of carbon fibre

- A special purpose packing for slurries with excellent elastic recovery property
- Kynol fibre on the corners enhances strength and chemical resistance
- Carbon fibre core enhances recovery property, thus ensures little tightening after installation and optimization maintenance time
- Thorough impregnation of PTFE provides trouble free start-up and low friction operation
- Easy to fit, easy to cut, doesn't heat up much

*A non staining and non abrasive packing, can be used for high speed application*

<b>Service Media and Conditions</b>	Mining, sugar plant, pulp and paper industry, river water pumping
<b>Temperature</b>	-100°C to 260°C
<b>Pressure</b>	200 bar (rotary)
<b>Shaft Speed</b>	20 m/sec (rotary)
<b>pH</b>	1 to 13
<b>Applications</b>	Pumps



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 734

Acrylic fibre braided packing with kynol fibre corners impregnated with PTFE and inert lubricant

- A special purpose packing for slurries with excellent elastic recovery properties
- Kynol fibre on the corners enhances strength and chemical resistance
- Thorough impregnation of PTFE provides trouble free startup and low friction operation
- Easy to fit, easy to cut, doesn't heat up much

*A non staining and non abrasive packing, can be used for high speed application.*

<b>Service Media and Conditions</b>	Mining, sugar plant, pulp and paper industry, river water pumping
<b>Temperature</b>	260°C
<b>Pressure</b>	200 bar (static)
<b>Shaft Speed</b>	22 m/s (rotary)
<b>pH</b>	1 to 13
<b>Applications</b>	Pumps



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 737

A soft and pliable pure PTFE filament packing, prelubricated in interlock braid

- Excellent packing for all chemicals, including acids and alkali of any concentration
- Interlock braid construction gives high structural strength and dimensional stability to the packing
- Impregnation of break-in lubricant reduces start up friction, improves running and lubricating properties, helps resist migrations and cuts out all leak paths in the packing
- A clean non contaminating packing with low co-efficient of friction

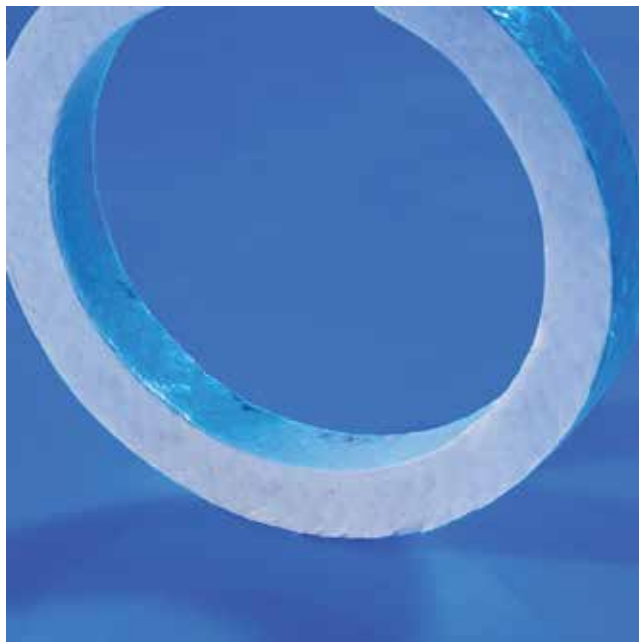
*Available in rope and ring form*

<b>Service Media and Conditions</b>	Chlorine and chlorine dioxide, bleach, acids of any concentration, alkali solutions, oils and greases, mineral oils, fumes and gases, corrosive gases, chemicals etc
<b>Temperature</b>	-200°C to 280°C
<b>Pressure</b>	20 bar (rotary), 30 bar (reciprocating)
<b>Shaft Speed</b>	12 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Rotary and reciprocating pumps/rods, expansion joints, valves, non-lubricating compressors, mixers, washers, agitators, mixers
<b>Flags</b>	Reduces start up friction





*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 737FG

A soft and pliable pure PTFE filament packing, prelubricated in interlock braid

- Excellent packing for all chemicals, including acids and alkali of any concentration
- Interlock braid construction gives high structural strength and dimensional stability to the packing
- Impregnation of break-in lubricant reduces start up friction, improves running and lubricating properties, helps resist migrations and cuts out all leak paths in the packing
- A clean non contaminating packing with low co-efficient of friction
- Available in rope and ring form

*Food grade certified.*

<b>Service Media and Conditions</b>	Chlorine and chlorine dioxide, bleach, acids of any concentration, alkali solutions, oils and greases, mineral oils, fumes and gases, corrosive gases, chemicals etc
<b>Temperature</b>	-200°C to 280°C
<b>Pressure</b>	20 bar (rotary), 30 bar (reciprocating)
<b>Shaft Speed</b>	12 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Rotary and reciprocating pumps/rods, expansion joints, valves, non-lubricating compressors, mixers, washers, agitators, mixers
<b>Flags</b>	Reduces start up friction



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 740

A new generation spun aramid fibre braided packing impregnated with PTFE and break-in lubricant

- The fibrous nature of aramid allows a thorough impregnation of PTFE in each yarn and then in the final packing to give low friction and trouble free operations
- A dense, non-contaminating packing with excellent volume stability—requires less frequent gland adjustments
- Superb abrasion resistance without any harm to the parent equipment
- Can be used for soft shaft/sleeve constructions
- Food Grade available

*Available in rope and ring form*

<b>Service Media and Conditions</b>	Juice, stock, cold and hot water, wood pulp and bleach, ash slurry, mud slurry, fly ash water, sewage, wash water, raw water, chemical slurries etc
<b>Temperature</b>	-100°C to 280°C
<b>Pressure</b>	150 bar (static), 20 bar (rotary), 80 bar (reciprocating)
<b>Shaft Speed</b>	22 m/sec (rotary)
<b>pH</b>	1 to 13
<b>Applications</b>	Pump, valves, agitators



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 740 MA

A new generation meta aramid fibre braided packing impregnated with PTFE dispersion and break-in lubricant

- The fibrous nature of Meta Aramid allows a thorough impregnation of PTFE in each yarn and then in the final packing to give low friction and trouble free operations
- A dense non-contaminating packing with excellent volume stability—requires less frequent gland adjustments
- Superb abrasion resistance without any harm to the parent equipment
- Can be used for soft shaft/sleeve constructions
- Food Grade available

*Available in rope and ring form*

<b>Service Media and Conditions</b>	Juice, stock, cold and hot water, caustic soda, ash slurry, mud slurry, fly ash water, sewage, wash water, raw water, chemical slurries etc
<b>Temperature</b>	-100°C to 280°C
<b>Pressure</b>	200 bar (static), 35 bar (rotary), 150 bar (reciprocating)
<b>Shaft Speed</b>	15 m/sec (rotary)
<b>pH</b>	1 to 13
<b>Applications</b>	Pumps, agitators



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 740 PN

A new generation pre-oxidised aramid staple fibre intimately blended braided packing impregnated with PTFE dispersion and break-in lubricant

- The fibrous nature of aramid staple fibre allows a thorough impregnation of PTFE in each yarn and then in the final packing to give low friction and trouble free operations
- Blending with pre-oxidised increases temperature resistance together with high mechanical stability and low co-efficient of friction
- A dense non contaminating packing with excellent volume stability—requires less frequent gland adjustments
- Superb abrasion resistance without any harm to the parent equipment

*Packing is impregnated with corrosion inhibitor to prevent galvanic corrosion*

<b>Service Media and Conditions</b>	Juice, stock, cold and hot water, caustic soda, ash slurry, mud slurry, fly ash water, sewage, wash water, raw water, chemical slurries etc
<b>Temperature</b>	-100°C to 280°C
<b>Pressure</b>	100 bar (static), 25 bar (rotary)
<b>Shaft Speed</b>	15 m/sec (rotary)
<b>pH</b>	1 to 13
<b>Applications</b>	Pumps, agitators, mixers, refiners etc



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 741

A new generation graphited spun aramid fibre braided packing impregnated with break-in lubricant

- The fibrous nature of aramid allows a thorough impregnation of PTFE in each yarn and then in the final packing to give low friction and trouble free operations
- A dense non-contaminating packing with excellent volume stability, requires less frequent gland adjustments
- Superb abrasion resistance without any harm to the parent equipment
- Can be used for soft shaft/sleeve constructions
- Addition of graphite improves heat dissipating properties

*Available in rope and ring form*

<b>Service Media and Conditions</b>	Juice, stock, cold and hot water, wood pulp and bleach, ash slurry, mud slurry, fly ash water, sewage, wash water, raw water, chemical slurries etc
<b>Temperature</b>	-100°C to 280°C
<b>Pressure</b>	150 bar (static), 20 bar (rotary), 80 bar (reciprocating)
<b>Shaft Speed</b>	20 m/sec (rotary)
<b>pH</b>	1 to 13
<b>Applications</b>	Pumps, valves, agitators





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## Pacmaan<sup>®</sup> NA 745

Multi-yarn packing made from pure aramid fibres with corners of pure PTFE fibres at the running surface

- The PTFE fibres yarns at the base provide excellent chemical resistance, low co-efficient of friction and virtually eliminate shaft scoring
- The tough PTFE impregnated aramid fibre yarns at the corners provides superb extrusion, abrasion and pressure resistance, allowing the packing to be used at very high pressure conditions
- Clean and non-toxic, can be used over a wide range of media including critical services that demand an extrusion resistant or reinforced packing

*Ideal in prepressed ring form*

<b>Service Media and Conditions</b>	Carbonate solution, ammonia compounds, chemicals, abrasives, slurries, sewage, water, oils, solvents, diluted acids and alkali etc
<b>Temperature</b>	-100°C to 280°C
<b>Pressure</b>	250 bar (static), 30 bar (rotary), 150 bar (reciprocating)
<b>Shaft Speed</b>	10 m/sec (rotary)
<b>pH</b>	2 to 13
<b>Applications</b>	Plunger pumps—NA 745 centrifugal shafts, mixers, agitators—NA 745L



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 745PP

Multi-yarn packing made from pure aramid fibres with corners of pure PTFE fibres at the running surface

- The PTFE fibres yarns at the base provide excellent chemical resistance, low co-efficient of friction and virtually eliminate shaft scoring
- The tough PTFE impregnated aramid fibre yarns at the corners provides superb extrusion, abrasion and pressure resistance, allowing the packing to be used at very high pressure conditions
- Clean and non-toxic, can be used over a wide range of media including critical services that demand an extrusion resistant or reinforced packing
- Available in prepressed ring form.

*Specially designed for plunger pump.*

<b>Service Media and Conditions</b>	Carbonate solution, ammonia compounds, chemicals, abrasives, slurries, sewage, water, oils, solvents, diluted acids and alkali etc
<b>Temperature</b>	-100°C to 280°C
<b>Pressure</b>	250 bar (static), 30 bar (rotary), 150 bar (reciprocating)
<b>Shaft Speed</b>	10 m/sec (rotary)
<b>pH</b>	2 to 13
<b>Applications</b>	Plunger pumps, centrifugal shafts, mixers, agitators.



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 746

Cross braided packing made of pure PTFE yarn and aramid yarn

- The PTFE fibres yarns provide excellent chemical resistance, low co-efficient of friction and virtually eliminate shaft scoring
- The tough PTFE impregnated aramid fibre yarns are pressure resistance, allowing the packing to be used at very high speed with minimal shaft wear

*Clean and non-toxic, can be used over a wide range of media including critical services that demand an extrusion resistant or reinforced packing*

<b>Service Media and Conditions</b>	Chemicals, abrasives, slurries, sewage, water, oils, solvents, diluted acids and alkali etc
<b>Temperature</b>	-100°C to 280°C
<b>Pressure</b>	250 bar (static), 30 bar (rotary), 150 bar (reciprocating)
<b>Shaft Speed</b>	10 m/sec (rotary)
<b>pH</b>	2 to 13
<b>Applications</b>	Rotary and plunger pump, mixer, stirrer, digester etc



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 747

Aramid fibre braided packing impregnated with PTFE

- One of the best sealing solutions for abrasive media such as stock, juice (sugar), slurries, fly ash, ash slurry etc
- High degree of resiliency and consistency of volume
- Special PTFE impregnation process to avoid shaft erosion and start up friction
- Interlock braiding for high pressure and extrusion resistance
- Shaft/sleeve hardness should be > 45 HRC: If not, please consult us
- Food Grade available

*Available in rope and ring forms*

<b>Service Media and Conditions</b>	Magma, massecuite, juice pumps, stock, ash slurry, mud slurry, fly ash water, sewage, highly abrasive bleach or wood pulp, wash water, raw water and turbid water, chemical slurries etc
<b>Temperature</b>	-100°C to 280°C
<b>Pressure</b>	200 bar (static), 35 bar (rotary), 200 bar (reciprocating)
<b>Shaft Speed</b>	20 m/sec (rotary), 10 m/sec (reciprocating)
<b>pH</b>	1 to 13
<b>Applications</b>	Pump, agitators



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 747FG

Aramid fibre braided packing impregnated with PTFE

- One of the best sealing solutions for abrasive media such as stock, juice (sugar), slurries, fly ash, ash slurry etc
- High degree of resiliency and consistency of volume
- Special PTFE impregnation process to avoid shaft erosion and start up friction
- Interlock braiding for high pressure and extrusion resistance
- Shaft/sleeve hardness should be > 45 HRC: If not, please consult us
- Food Grade certified

*Available in rope and ring form*





*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 748

Aramid fibre braided packing impregnated with PTFE

- One of the best sealing solutions for abrasive media such as stock, juice (sugar), slurries, fly ash, ash slurry etc
- High degree of resiliency and consistency of volume
- Special PTFE impregnation process to avoid shaft erosion and start-up friction
- Interlock braiding for high pressure and extrusion resistance
- Shaft/sleeve hardness should be > 45 HRC; if not, please consult us
- Addition of graphite improves heat dissipating properties

*Available in rope and ring forms*

<b>Service Media and Conditions</b>	Magma, massecuite, juice pumps, stock, ash slurry, mud slurry, fly ash water, sewage, highly abrasive bleach or wood pulp, wash water, raw water and turbid water, chemical slurries etc
<b>Temperature</b>	-100°C to 280°C
<b>Pressure</b>	200 bar (static), 40 bar (rotary), 200 bar (reciprocating)
<b>Shaft Speed</b>	222 m/sec (rotary), 10 m/sec (reciprocating)
<b>pH</b>	1 to 13
<b>Applications</b>	Pump, agitators



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 751

A high grade carbon fibre yarn packing impregnated with a special graphite mix in interlock braid

- Low co-efficient of friction enables it to run almost frictionless without any heat build up or fatigue
- The graphite mix impregnation acts as a blocking agent, stopping all gas/liquid penetrations; at the same time, it is high temperature resistant
- Excellent resistance to chemicals
- High mechanical strength and dimensional stability
- Corrosion inhibitor present in the graphite mix prevents stem pitting
- Can be used as an anti-extrusion rings or bull ring in combination with softer packings, even in abrasive media

*Available in rope and ring forms*

<b>Service Media and Conditions</b>	Acid and alkali, caustics, liquor, steam, boiler feed water, condensate, DM water, fuel oil, lube oil, solvents, oil, gases, hydrocarbons etc
<b>Temperature</b>	-240°C to 650°C
<b>Pressure</b>	250 bar (static), 25 bar (rotary), 100 bar (reciprocating)
<b>Shaft Speed</b>	20 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Pump, valves, agitators, mixers



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 751M

A high grade carbon fibre yarn packing impregnated with a special solid lubricant in interlock braid

- Low co-efficient of friction enables it to run almost frictionless without any heat build up or fatigue
- The graphite mix impregnation acts as a blocking agent, stopping all gas/liquid penetrations, while also being resistant to high temperatures
- Excellent resistance to chemicals
- High mechanical strength and dimensional stability
- Corrosion inhibitor present in the graphite mix prevents stem pitting
- Can be used as an anti-extrusion ring or bull ring in combination with softer packings, even in abrasive media

*Available in rope and ring forms*

<b>Service Media and Conditions</b>	Acid and alkali, caustics, liquor, steam, boiler feed water, condensate, DM water, fuel oil, lube oil, solvents, oil, gases, hydrocarbons etc
<b>Temperature</b>	-240°C to 650°C
<b>Pressure</b>	250 bar (static), 25 bar (rotary), 100 bar (reciprocating)
<b>Shaft Speed</b>	20 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Pump, valves, agitators, mixers



*J D Jones & Co (P) Ltd*

## Pacmaan<sup>®</sup> NA 751SR

A high grade Carbon fibre yarn packing impregnated with a special Graphite mix with special hollow silicone rubber core in Interlock braid.

- Low coefficient of friction, enables it to run almost frictionless without any heat build up or fatigue.
- The graphite mix impregnation acts as a blocking agent, stopping all gas/liquid penetrations, while also being resistant to high temperatures
- Excellent resistance to chemicals
- High mechanical strength and dimensional stability.
- Corrosion inhibitor present in the graphite mix prevents stem pitting
- Can be used as an anti-extrusion rings or bull ring in combination with softer packings, even in abrasive media
- Hollow silicon rubber core provides superb recovery and resilience enabling the packing to withstand shaft deflection/vibration with ease.

*Available in rope form*

<b>Service Media and Conditions</b>	Acid and alkali, caustics, liquor, steam, boiler feed water, condensate, DM water, fuel oil, lube oil, solvents, oil, gases, hydrocarbons etc
<b>Temperature</b>	-240°C to 650°C
<b>Pressure</b>	250 bar (static), 25 bar (rotary), 100 bar (reciprocating)
<b>Shaft Speed</b>	20 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Pump, valves, agitators, mixers



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 752

A high grade carbon fibre yarn packing reinforced with Inconel wire impregnated with a special graphite mix in interlock braid

- Low co-efficient of friction enables it to run almost frictionless without any heat build up or fatigue
- The graphite mix impregnation acts as a blocking agent, stopping all gas/liquid penetrations; at the same time it is high temperature resistant
- Excellent resistance to chemicals
- High mechanical strength and dimensional stability
- Corrosion inhibitor present in the graphite mix prevents stem pitting
- Can be used as anti-extrusion rings or a bull ring in combination with softer packings, even in abrasive media

*Available in rope and ring forms*

<b>Service Media and Conditions</b>	Acid and alkali, caustics, liquor, steam, boiler feed water, condensate, DM water, fuel oil, lube oil, solvents, oil, gases, hydrocarbons etc
<b>Temperature</b>	-240°C to 650°C
<b>Pressure</b>	250 bar (static), 25 bar (rotary), 100 bar (reciprocating)
<b>Shaft Speed</b>	20 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Valves





*J D Jones & Co (P) Ltd*



## Pacmaan® NA 753

A special carbon fibre packing impregnated with PTFE and lubricant in interlock braid

- A non-staining and non-contaminating carbon fibre packing with good running properties
- A low friction packing with excellent chemical resistance, even against strong acids and caustics
- Impregnation of PTFE and break-in lubricant reduces start-up friction, improves sliding properties and adds to the chemical resistance of the packing
- Wide application in paper mills and refineries

*Available in rope and ring form*

<b>Service Media and Conditions</b>	Acids and alkali, caustics, slurries, pulp and paper mill applications, liquor, hydrocarbons etc
<b>Temperature</b>	-240°C to 320°C
<b>Pressure</b>	25 bar (rotary)
<b>Shaft Speed</b>	15 m/sec (rotary)
<b>pH</b>	1 to 13
<b>Applications</b>	Pumps, agitators, mixers, washers



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 754

A high grade graphite fibre yarn packing impregnated with a special graphite mix in interlock braid

- A universal plant wide multi-service packing made f
- Very low co-efficient of friction, high thermal conductivity and sliding velocity, runs almost frictionless without any shaft wear
- Excellent resistance to chemicals and hardening thereof
- Structural strength and cross-sectional density of the packing helps reduce maintenance work
- Can be used as an anti-extrusion rings or bull ring in combination with softer packings, even in abrasive media

*Available in rope and ring form*

<b>Service Media and Conditions</b>	Superheated steam, strong chemicals, thermic fluid, acids and alkali, oils and solvents, boiler feed water and condensate, hot tar, SO <sub>2</sub> and SO <sub>3</sub> , fuel oil/lube oil, hydrocarbons etc
<b>Temperature</b>	-240°C to 650°C
<b>Pressure</b>	300 bar (static), 30 bar (rotary)
<b>Shaft Speed</b>	25 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Pump, valves, agitators, mixers



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 754PL

A high grade graphite fibre yarn braided packing with a

- A universal plant wide multi-service packing made from high quality graphite fibres impregnated with a special graphite mix and special lubricant
- Very low co-efficient of friction, high thermal conductivity and sliding velocity, runs almost frictionless without any shaft wear
- Use of additional lubricant improves overall performance in dynamic application, also acts as a blocking agent
- Excellent resistance to chemicals and hardening thereof
- Structural strength and cross-sectional density of the packing helps reduce maintenance work

*Can be used as an anti-extrusion ring or bull ring in combination with softer packings, even in abrasive media*

<b>Service Media and Conditions</b>	Superheated steam, strong chemicals, thermic fluid, acids and alkali, oils and solvents, boiler feed water and condensate, hot tar, SO <sub>2</sub> and SO <sub>3</sub> , fuel oil/ lube oil, hydrocarbons etc
<b>Temperature</b>	-240°C to 650°C
<b>Pressure</b>	300 bar (static), 30 bar (rotary)
<b>Shaft Speed</b>	25 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Pump, valves, agitators, mixers



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 755

A high grade graphite fibre yarn packing reinforced with Inconel wire impregnated with a special graphite mix in interlock braid

- A universal plant wide multi-service packing
- Very low co-efficient of friction, high thermal conductivity and sliding velocity, runs almost frictionless without any shaft wear
- Excellent resistance to chemicals and hardening thereof
- Structural strength and cross-sectional density of the packing helps reduce maintenance work
- Can be used as an anti-extrusion rings or bull ring in combination with softer packings, even in abrasive media

*Available in rope and ring form*

<b>Service Media and Conditions</b>	Superheated steam, strong chemicals, thermic fluid, acids and alkali, oils and solvents, boiler feed water and condensate, hot tar, SO <sub>2</sub> and SO <sub>3</sub> , fuel oil/lube oil, hydrocarbons etc
<b>Temperature</b>	-240°C to 650°C
<b>Pressure</b>	300 bar (static), 30 bar (rotary)
<b>Shaft Speed</b>	25 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Pump, valves, agitators, mixers



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 757

Graphited PTFE yarn packing in interlock braiding

- A general purpose packing made from high grade graphited and lubricated PTFE yarns
- Can be used for a wide range of services across the plant
- Dense pliable packing with a high degree of resiliency
- Does not cause shaft wear

*Available in rope and ring form*

<b>Service Media and Conditions</b>	Bleach washer, caustics, non-abrasive liquor, DM water, condensate, acids, hypo, boiler feed water, fuel-lube oil, acid and alkali regeneration
<b>Temperature</b>	-200°C to 280°C
<b>Pressure</b>	250 bar (static), 28 bar (rotary), 100 bar (reciprocating)
<b>Shaft Speed</b>	24 m/sec (rotary), 2 m/sec (reciprocating)
<b>pH</b>	0 to 14
<b>Applications</b>	Pumps, agitators, mixers, valves, washers





*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 758CCC

A high grade expanded PTFE graphite braided packing with carbon corner made from expanded PTFE graphite yarn reinforced with carbon fibre inside and with carbon fibre on the outside corner

- One of the most versatile pump packings for all slurry applications
- The unique structure of the packing, made from expanded PTFE graphite yarn ensures non abrasion, saves shafts and sleeves. Structural carbon fibre reinforcement ensures rigidity while carbon fibre on the outside corner offers a high degree of slurry sealing and long leakage
- Easily removable, ensuring low downtime

*Proven for low leakage and long life*

<b>Service Media and Conditions</b>	Bottom slurry (refinery), ash slurry, mineral slurry, bauxite slurry and other slurry applications
<b>Temperature</b>	-200°C to 280°C
<b>Pressure</b>	30 bar (rotary)
<b>Shaft Speed</b>	20 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Pumps



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 758H

High grade expanded PTFE graphited yarn packing in interlock braid

- A superb choice of rotary as well as static equipment packing needs
- Made from expanded PTFE graphite yarns having excellent chemical resistance and heat dissipation properties
- The packing is proven over a wide range of applications including feed water, harsh chemicals, caustics, oils, mild slurries etc
- Excellent dimensional stability
- Does not burn on start-up, low co-efficient of friction

*Available in rope and ring form*

<b>Service Media and Conditions</b>	Bleach washer, caustics, non-abrasive liquor, DM water, condensate, acids, hypo, boiler feed water, fuel-lube oil, acid and alkali regeneration
<b>Temperature</b>	-200°C to 280°C
<b>Pressure</b>	250 bar (static), 30 bar (rotary), 150 bar (reciprocating)
<b>Shaft Speed</b>	22 m/sec (rotary), 3 m/sec (reciprocating)
<b>pH</b>	0 to 14
<b>Applications</b>	Pumps, agitators, mixers, valves, washers



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 758HG2

High grade G-2 fibre yarn of WL Gore packing in interlock braid

- A superb choice of rotary as well as static equipment packing needs
- Made from expanded PTFE graphite yarns having excellent chemical resistance and heat dissipation properties
- The packing is proven over a wide range of applications including feed water, harsh chemicals, caustics, oils, mild slurries etc
- Excellent dimensional stability
- Does not burn on start-up, low co-efficient of friction

*Available in rope and ring form*

<b>Service Media and Conditions</b>	Bleach washer, caustics, non-abrasive liquor, DM water, condensate, acids, hypo, boiler feed water, fuel-lube oil, acid and alkali regeneration
<b>Temperature</b>	-200°C to 280°C
<b>Pressure</b>	250 bar (static), 30 bar (rotary), 150 bar (reciprocating)
<b>Shaft Speed</b>	22 m/sec (rotary), 3 m/sec (reciprocating)
<b>pH</b>	0 to 14
<b>Applications</b>	Pumps, agitators, mixers, valves, washers



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 759

An expanded pure PTFE packing in interlock braid, prelubricated, 100% FDA compliant

- Excellent heat dissipation properties, similar to graphite, allows the packing to withstand higher shaft speeds than conventional PTFE packings
- Ideal for bleach washer, chlorine services, corrosive media in a paper mill
- High lubricity and thermal conductivity of the packing virtually eliminates shaft scoring, extending the life of the packing and the pump
- Superb resistance to practically all chemical media
- Does not swell, unlike conventional pure PTFE packing

*Available in rope and ring form*

<b>Service Media and Conditions</b>	Chlorine and chlorine dioxide, bleach, washer, foodstuff, caustics, acids, alkali, dyes and chemicals, corrosive media, chlorine, oils, solvents, water, hot water, condensate, DM water etc
<b>Temperature</b>	-200°C to 280°C
<b>Pressure</b>	250 bar (static), 20 bar (rotary), 150 bar (reciprocating)
<b>Shaft Speed</b>	5 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Centrifugal pumps, rotary and reciprocating pumps, valves, agitators, mixers, dryers, washers, refiners



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 759FG

An expanded pure PTFE packing in interlock braid, prelubed, 100% FDA compliant

- Excellent heat dissipation properties, similar to graphite, allow the packing to withstand higher shaft speeds than conventional PTFE packings
- Ideal for bleach washer, chlorine services, corrosive media in paper mills
- Superb resistance to practically all chemical media
- Does not swell, unlike conventional pure PTFE packing

*Available in ring and rope form*

<b>Service Media and Conditions</b>	Chlorine and chlorine dioxide, bleach, washer, foodstuff, caustics, acids, alkali, dyes and chemicals, corrosive media, chlorine, oils, solvents, water, hot water, condensate, DM water etc
<b>Temperature</b>	-200°C to 260°C
<b>Shaft Speed</b>	20 m/s (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Centrifugal pumps, rotary and reciprocating pumps, valves, agitator mixers, dryers, washers, refiners





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## Pacmaan<sup>®</sup> NA 760

Multi-yarn packing made from pure aramid fibres with corners of pure expanded pre-lubed PTFE fibres at the running surface

- The expanded pre-lubed PTFE fibres yarns at the base provide excellent chemical resistance, low co-efficient of friction and virtually eliminate shaft scoring
- The tough PTFE impregnated aramid fibre yarns at the corners provides superb extrusion, abrasion and pressure resistance, allowing the packing to be used at very high pressure conditions
- Clean and non-toxic, can be used over a wide range of media including critical services that demand an extrusion resistant or reinforced packing

*Available in rope and prepressed ring form.*

<b>Service Media and Conditions</b>	Carbonate solution, ammonia compounds, chemicals, abrasives, slurries, sewage, water, oils, solvents, diluted acids and alkali etc
<b>Temperature</b>	-100°C to 280°C
<b>Pressure</b>	250 bar (static), 30 bar (rotary), 150 bar (reciprocating)
<b>Shaft Speed</b>	10 m/sec (rotary)
<b>pH</b>	2 to 13
<b>Applications</b>	Plunger pumps, centrifugal shafts, mixers, agitators.



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 763

Special high performance packing of aramid yarns corners and expanded PTFE graphite fibre yarns at the running surface

- Ideal packing for services where chemical resistance, high strength and sliding properties are essential
- The special aramid fibres at the corners enhance pressure and extrusion resistance of the packing even at higher temperatures
- Excellent resistance to abrasive media, low friction packing
- Can be used in all aggregates with a large clearance/gap

*Available in rope and ring form*

<b>Service Media and Conditions</b>	Ammonia and carbonate solution plunger pumps, liquor pumps in paper mills like black and white liquor, sewage water, hot water, industrial water, oils, greases, solids, sand, weak acids and alkali solutions etc
<b>Temperature</b>	-100°C to 280°C
<b>Pressure</b>	250 bar (static), 30 bar (rotary), 350 bar (reciprocating)
<b>Shaft Speed</b>	20 m/sec (rotary), 3 m/sec (reciprocating)
<b>pH</b>	2 to 13
<b>Applications</b>	Digesters, plunger and centrifugal pumps, agitators, booster pumps



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 763G2

Special high performance packing of aramid yarns corners and original G-2 fibre yarn of WL Gore at the running surface

- Ideal packing for services where chemical resistance, high strength and sliding properties are essential
- The special aramid fibres at the corners enhance pressure and extrusion resistance of the packing even at higher temperatures
- Excellent resistance to abrasive media, low friction packing
- Can be used in all aggregates with a large clearance/gap

*Available in rope and ring form*

<b>Service Media and Conditions</b>	Ammonia and carbonate solution plunger pumps, liquor pumps in paper mills like black and white liquor, sewage water, hot water, industrial water, oils, greases, solids, sand, weak acids and alkali solutions etc
<b>Temperature</b>	-100°C to 280°C
<b>Pressure</b>	250 bar (static), 30 bar (rotary), 350 bar (reciprocating)
<b>Shaft Speed</b>	20 m/sec (rotary), 3 m/sec (reciprocating)
<b>pH</b>	2 to 13
<b>Applications</b>	Digesters, plunger and centrifugal pumps, agitators, booster pumps



*J D Jones & Co (P) Ltd*



### **Pacmaan<sup>®</sup> NA 763RC**

Special high performance packing of aramid yarns corners and expanded PTFE graphite fibre yarns at the running surface with a black solid silicon rubber core at the centre

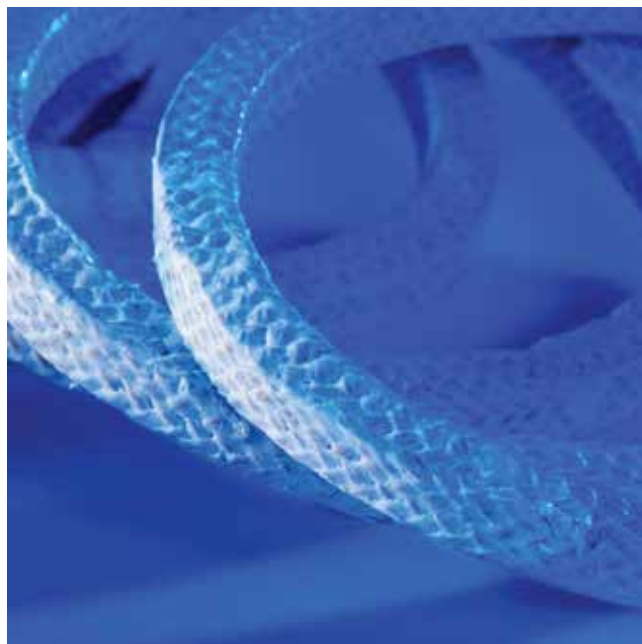
- Ideal packing for services where chemical resistance, high strength and sliding properties are essential
- Unique packing to run at high speed with minimum wear of shaft, exceptional extrusion resistance at high pressure together with high thermal conductivity, low co-efficient of friction
- The special aramid fibres at the corners enhance pressure and extrusion resistance of the packing even at higher temperatures

*The use of high temperature resistant rubber core enhanced compression and recovery property ie, resiliency of packing which improves the performance of the packing when used in old equipment where the shaft runs out of true due to worn bearings, poor support of shaft or due to wear and tear for long running*

<b>Service Media and Conditions</b>	Ammonia and carbonate solution plunger pumps, liquor pumps in paper mills like black and white liquor, sewage water, hot water, industrial water, oils, greases, solids, sand, weak acids and alkali solutions etc
<b>Temperature</b>	-50°C to 280°C
<b>Pressure</b>	250 bar (static), 20 bar (rotary), 100 bar (reciprocating)
<b>Shaft Speed</b>	20 m/sec (rotary), 2 m/sec (reciprocating)
<b>pH</b>	1 to 13
<b>Applications</b>	Digesters, plunger and centrifugal pumps, agitators, booster pumps



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 767

A high flax packing impregnated with PTFE and high viscous lubricant

- The packing is resilient and flexible
- A low cost packing for rotary pump

*Impregnation of PTFE enhances resistance to chemical reaction, increases service life and improves sealing performance*

<b>Temperature</b>	-10°C to 120°C
<b>Pressure</b>	100 bar (static), 20 bar (rotary), 50 bar (reciprocating)
<b>Shaft Speed</b>	12 m/sec (rotary), 5 m/sec (reciprocating)
<b>pH</b>	5–9
<b>Applications</b>	Rotary pump, reciprocating pump, domestic fresh water pump





*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 768

Ramie fibre interlock braided packing impregnated with PTFE and break-in lubricant

- Superior alternative to both conventional asbestos greased graphited packing and cotton packing
- Tough vegetable fibres are gentle on the shaft and prevent scoring
- Extends pump bearing life
- PTFE lubrication reduces friction

*Excellent resistance to rot and wear*

<b>Service Media and Conditions</b>	Water, chilled water, cooling water, raw water etc
<b>Temperature</b>	-50°C to 150°C
<b>Pressure</b>	50 bar (static), 25 bar (rotary), 30 bar (reciprocating)
<b>Shaft Speed</b>	10 m/sec (rotary)
<b>pH</b>	5 to 11
<b>Applications</b>	Pumps and valves



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## Pacmaan<sup>®</sup> NA 769

Ramie fibre interlock braided packing impregnated with PTFE without oil

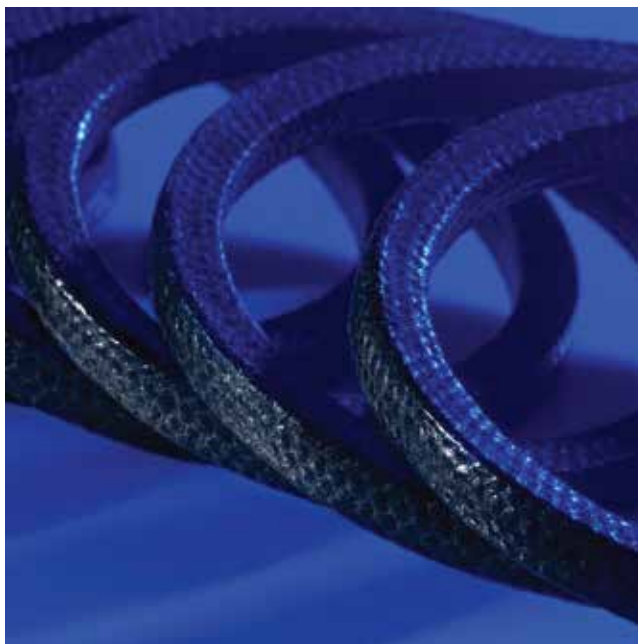
- Superior alternative to conventional asbestos greased graphited packing as well as cotton packing
- Tough vegetable fibres that are gentle on the shaft, prevent scoring
- Extends pump bearing life
- PTFE lubrication reduces friction

*Excellent resistance to rot and wear*

<b>Service Media and Conditions</b>	Water, chilled water, cooling water, raw water etc
<b>Temperature</b>	-50°C to 150°C
<b>Pressure</b>	50 bar (static), 25 bar (rotary), 30 bar (reciprocating)
<b>Shaft Speed</b>	10 m/sec (rotary)
<b>pH</b>	5 to 11
<b>Applications</b>	Pumps and valves



*J D Jones & Co (P) Ltd*



## **Pacmaan<sup>®</sup> NA 770**

Ramie fibre interlock braided packing impregnated with PTFE, graphite and break in lubricant

- Superior alternative to conventional asbestos greased graphite packing as well as cotton packing
- PTFE lubrication reduces friction
- Tough vegetable fibres are gentle on the shaft, prevent scoring
- Extends pump bearing life
- PTFE lubrication reduces friction
- Presence of graphite improves heat dissipation

*A softer packing for low pressure hydraulic applications*

<b>Service Media and Conditions</b>	Cold water, salt water, waste water, cold oil.
<b>Temperature</b>	150°C
<b>Pressure</b>	100 bar (static), 40 bar (rotary)
<b>Shaft Speed</b>	6 m/sec (rotary)
<b>pH</b>	5 to 11
<b>Applications</b>	Pumps and valves



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## Pacmaan<sup>®</sup> NA 772

An inter-braided packing made of pure PTFE fibre and pure graphite fibre

- A combination of two different chemical properties makes it unique multi-service packing
- Presence of graphite fibre disperses excess heat generation due to friction

*Mechanically strong but flexible*

<b>Service Media and Conditions</b>	Acid, oil, corrosive gases, alkali
<b>Temperature</b>	-100°C to 280°C
<b>Pressure</b>	25 bar (rotary)
<b>Shaft Speed</b>	10 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Pumps, valves, mixers, agitators



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 774

A high grade cotton yarn packing impregnated with special lubricant

- The packing is resilient and flexible
- A low cost packing for rotary pump

### *Universal usage*

<b>Temperature</b>	-20°C to 120°C
<b>Pressure</b>	50 bar (static), 10 bar (rotary)
<b>Shaft Speed</b>	10 m/sec (rotary)
<b>pH</b>	5–10
<b>Applications</b>	Rotary pump, reciprocating pump, domestic fresh water pump





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## Pacmaan<sup>®</sup> NA 775

A high grade cotton yarn packing impregnated with grease and graphite

- The packing is resilient and flexible
- The ideal packing for rotary pump

*The graphite mix impregnation acts as a blocking agent, stopping all gas/liquid penetrations*

<b>Temperature</b>	-20°C to 120°C
<b>Pressure</b>	50 bar (static), 10 bar (rotary)
<b>Shaft Speed</b>	10 m/sec (rotary)
<b>pH</b>	5–10
<b>Applications</b>	Rotary pump, reciprocating pump, domestic fresh water pump



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## Pacmaan<sup>®</sup> NA 776

Cotton fibre duplex braided packing with PTFE impregnation and inert lubricant

- Multiservice hydraulic packing
- Tough vegetable fibres that are gentle on the shaft, prevent scoring
- Extends pump bearing life
- PTFE Lubrication reduces friction

*Excellent resistance to rot and wear and avoids discolouration*

<b>Service Media and Conditions</b>	Water, chilled water, hot water, demineralised water, raw water etc
<b>Temperature</b>	150°C
<b>Pressure</b>	150 Bar (static), 80 Bar (rotary)
<b>pH</b>	2 to 10
<b>Applications</b>	Pumps and valves



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 777

A high grade flax Packing impregnated with PTFE, no oil.

- The packing is resilient and flexible
- A low cost packing for rotary pump

*Impregnation of PTFE enhances resistance to chemical reaction, increases service life and improves sealing performance*

<b>Pressure</b>	50 bar (static), 15 bar (rotary)
<b>Shaft Speed</b>	12 m/sec (rotary), 5 m/sec (reciprocating)
<b>pH</b>	5 to 9
<b>Applications</b>	Rotary Pump, Reciprocating Pump, Domestic fresh water Pump.



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 778

A high grade flax packing impregnated with petroleum jelly and graphite

- The packing is resilient and flexible
- A low cost packing for rotary pump

*This packing is popular in applications that do not require sophisticated sealing systems*

<b>Temperature</b>	-10°C to 120°C
<b>Pressure</b>	100 bar (static), 12 bar (rotary), 50 bar (reciprocating)
<b>Shaft Speed</b>	10 m/sec (rotary), 2 m/sec (reciprocating)
<b>pH</b>	6 to 10
<b>Applications</b>	Rotary pump, reciprocating pump, valves



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## Pacmaan<sup>®</sup> NA 781

A pure PTFE filament packing impregnated with PTFE

- Manufactured from the purest PTFE yarns to give a soft resilient packing with high dimensional strength, low co-efficient of friction, good chemical resistance and inertness to most media
- Special PTFE impregnation, the packing contains no oil
- Ideal for valves and slow shaft speed applications
- Food Grade available

*Available in rope and ring form*

<b>Service Media and Conditions</b>	Highly corrosive chemicals, ammonia charge pumps and carbonate recycle pumps, strong as well as weak acid and alkali, chemicals, foodstuffs, pharmaceutical industry applications, drinking water, hydrogen etc
<b>Temperature</b>	-200°C to 280°C
<b>Pressure</b>	200 bar (static), 20 bar (rotary), 175 bar (reciprocating)
<b>Shaft Speed</b>	5 m/sec (rotary), 2 m/sec (reciprocating)
<b>pH</b>	0 to 14
<b>Applications</b>	Valves, plunger pumps, slow rotary/reciprocating pumps, agitators, mixers, filters, blenders, cookers, vacuum dryers etc
<b>Flags</b>	Highly corrosive chemicals





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## Pacmaan<sup>®</sup> NA 781A

A pure PTFE filament packing impregnated with PTFE having aramid core in interlock braid

- The aramid yarn core provides the resilience, recovery and dimensional stability
- The lubricated PTFE braiding is also chemically inert and protects the aramid core, providing a very low co-efficient of friction

*Available in ring form*

<b>Service Media and Conditions</b>	Valves, plunger pumps, slow rotary/reciprocating pumps, agitators, mixers, filters, blenders, cookers, vacuum dryers etc
<b>Temperature</b>	200°C
<b>Pressure</b>	200 bar (static)



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## **Pacmaan<sup>®</sup> NA 781FG**

A pure PTFE filament packing impregnated with PTFE

- Manufactured from the purest PTFE yarns to give a soft resilient packing with high dimensional strength, low co-efficient of friction, good chemical resistance and inertness to most media
- Special PTFE impregnation, the packing contains no oil
- Ideal for valves and slow shaft speed applications
- Food Grade certified

*Available in rope and ring form*



*J D Jones & Co (P) Ltd*

## Pacmaan<sup>®</sup> NA 781G

A pure PTFE filament packing impregnated with PTFE having carbon core in interlock braid

- The carbon yarn core provides the resilience, recovery and dimensional stability
- The lubricated PTFE braiding is also chemically inert and protects the carbon core, providing a very low co-efficient of friction

*Available in ring form*

<b>Service Media and Conditions</b>	Valves, plunger pumps, slow rotary/reciprocating pumps, agitators, mixers, filters, blenders, cookers, vacuum dryers etc
<b>Temperature</b>	200°C
<b>Pressure</b>	200 bar (static)



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## Pacmaan<sup>®</sup> NA 781L

A pure PTFE filament packing impregnated with PTFE dispersion and with break-in lubricant in interlock braid

- Manufactured from the purest PTFE yarns to give a soft resilient packing with high dimensional strength, low co-efficient of friction, good chemical resistance and inertness to most media
- Special PTFE impregnation and added break-in lubricant enables the packing to perform with less friction Special PTFE impregnation and added break-in lubricant enables the packing to perform with less friction
- Ideal for moderate shaft speed applications

*Available in ring and rope form*

<b>Service Media and Conditions</b>	Highly corrosive chemicals, ammonia charge pumps and carbonate recycle pumps, strong as well as weak acid and alkali, chemicals, foodstuffs, pharmaceutical industry applications, drinking water, hydrogen etc
<b>Temperature</b>	-200°C to 280°C
<b>Pressure</b>	20 bar (rotary), 5 bar (reciprocating)
<b>Shaft Speed</b>	8 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Medium rotary/reciprocating pumps, agitators, mixers, filters, blenders, cookers, vacuum dryers etc
<b>Flags</b>	low co-efficient of friction



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## Pacmaan<sup>®</sup> NA 781PP

A pure PTFE filament packing impregnated with PTFE

- Manufactured from the purest PTFE yarns to give a soft resilient packing with high dimensional strength, low co-efficient of friction, good chemical resistance and inertness to most media
- Special PTFE impregnation, the packing contains no oil
- Ideal for valves and slow shaft speed applications
- Available in pre-pressed ring form

*Specially designed for plunger pump*

<b>Service Media and Conditions</b>	Highly corrosive chemicals, ammonia charge pumps and carbonate recycle pumps, strong as well as weak acids and alkalis, chemicals, foodstuffs, pharmaceutical industry applications, drinking water, hydrogen etc
<b>Temperature</b>	-200°C to 280°C
<b>Pressure</b>	200 bar (static), 20 bar (rotary), 175 bar (reciprocating)
<b>Shaft Speed</b>	5 m/sec (rotary), 2 m/sec (reciprocating)
<b>pH</b>	0 to 14
<b>Applications</b>	Valves, plunger pumps, slow rotary/reciprocating pumps, agitators, mixers, filters, blenders, cookers, vacuum dryers etc





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### **Pacmaan<sup>®</sup> NA 783**

Special spun novoloid fibre packing impregnated with PTFE and break-in lubricant in interlock braid

- A new fibre that combines the strength of aramid and chemical resistance of PTFE/graphite
- A multipurpose plant wide packing for the pulp and paper industry
- A thorough impregnation of PTFE provides low friction operations and a dense packing without any leak paths
- A non staining and non abrasive packing, can be used for high speed applications

*Available in rope and ring form*

<b>Service Media and Conditions</b>	Chemicals, mild acids, alkali, pulp and paper applications, liquor, water, sewage etc
<b>Temperature</b>	-100°C to 260°C
<b>Pressure</b>	100 bar (static), 25 bar (rotary), 50 bar (reciprocating)
<b>Shaft Speed</b>	15 m/sec (rotary)
<b>pH</b>	1 to 14
<b>Applications</b>	Pumps, agitators, mixers etc



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 784

Special spun novoloid fibre packing impregnated with PTFE and break-in lubricant and graphite, in interlock braid

- A new fibre that combines the strength of aramid and chemical resistance of PTFE/graphite
- A multipurpose plant wide packing for the pulp and paper industry
- A thorough impregnation of PTFE provides low friction operations and a dense packing without any leak paths
- Impregnation of graphite reduces shaft wear and ensure heat dissipation
- A non-staining and non abrasive packing, can be used for high speed applications

*Available in rope and ring form*

<b>Service Media and Conditions</b>	Chemicals, mild acids, alkali, pulp and paper applications, liquor, water, sewage etc
<b>Temperature</b>	-100°C to 260°C
<b>Pressure</b>	100 bar (static), 30 bar (rotary), 150 bar (reciprocating)
<b>Shaft Speed</b>	20 m/sec (rotary)
<b>pH</b>	1 to 14
<b>Applications</b>	Pumps, agitators, mixers etc



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 785

Novoloid fibre packing impregnated with PTFE and break-in lubricant in interlock braid

- Pure novoloid fibres exhibit the strength of aramid and chemical resistance of PTFE/graphite
- A multipurpose plant-wide packing for the pulp and paper industry
- A thorough impregnation of PTFE provides low friction operations and a dense packing without any leak paths
- A non-staining and non-abrasive packing—can be used for high speed applications

*Available in rope and ring form*

<b>Service Media and Conditions</b>	Chemicals, mild acids, alkali, pulp and paper applications, liquor, water, sewage etc
<b>Temperature</b>	-100°C to 260°C
<b>Pressure</b>	100 bar (static), 30 bar (rotary), 150 bar (reciprocating)
<b>Shaft Speed</b>	15 m/sec (rotary)
<b>pH</b>	1 to 14
<b>Applications</b>	Pumps, agitators, mixers etc



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 790

Cross braided packing with aramid yarn and graphite impregnated PTFE lubricated yarn

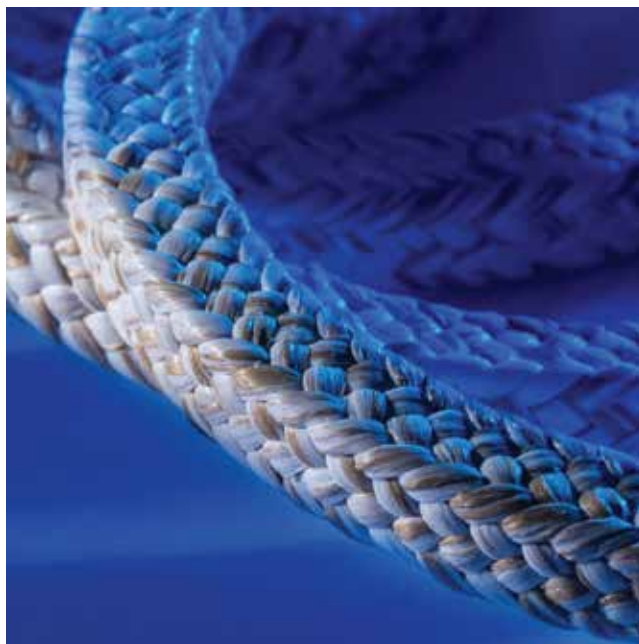
- Excellent resiliency of the packing ensures less gland adjustment
- This packing is immune to chemical reaction resulting in a longer life
- Presence of graphite transfers the heat generated at the spindle
- The construction ensures toughness and durability of aramid yarn together with reduced shaft wear and better thermal conductivity than pure aramid packing

*Available in rope and ring form*

<b>Service Media and Conditions</b>	Sewage water, hot water, industrial water, oils, greases, solids, sand, weak acids and alkali solutions etc
<b>Temperature</b>	-100°C to 280°C
<b>Pressure</b>	200 bar (static), 30 bar (rotary), 50 bar (reciprocating)
<b>Shaft Speed</b>	15 m/sec (rotary), 3 m/sec (reciprocating)
<b>pH</b>	2 to 13
<b>Applications</b>	Rotary and piston pump, mixer, stirrer, reactor etc



*J D Jones & Co (P) Ltd*



## **Pacmaan<sup>®</sup> NA 801**

PTFE yarn braided packing reinforced with Aramid fibre

- The unsurpassed chemical resistance of pure PTFE combined with the mechanical strength and extrusion resistance of tough and durable aramid
- Low co-efficient of friction of PTFE, does not wear shafts or sleeves
- An ideal packing for applications requiring both highest chemical resistance and mechanical strength

*An excellent all-round packing for the simplest as well as the most demanding applications*

<b>Service Media and Conditions</b>	Black liquor, white liquor, chemicals, acids and alkalis, solvents, oils and greases, sewage, water, steam, abrasive slurries
<b>Pressure</b>	250 bar (static), 35 bar (rotary), 250 bar (reciprocating)
<b>Shaft Speed</b>	12 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Pumps, Valves, Mixers, Agitators, Refiners, Diffusers





*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 802

Special PTFE graphite packing intimately reinforced with aramid fibres in each yarn, in interlock braid

- A true multi-service packing
- Excellent chemical resistance, heat dissipating, sliding velocity, low co-efficient of friction properties of PTFE graphite and the abrasion, pressure resistance and mechanical strength of aramid
- A homogenous 'full' yarn with good dimensional and volume stability
- A soft supple packing, non-abrasive in nature and gentle on the shaft
- Ideal for aggressive chemical fluids operating at high pressures and shaft speeds

*Available in rope and ring form*

<b>Service Media and Conditions</b>	Chemical and abrasive slurries, liquor pumps, washers, sewage, solvents, aggressive fluids, water, boiler feed water, hot water, condensate, oils and greases, steam, paper mill applications etc
<b>Temperature</b>	-100°C to 280°C
<b>Pressure</b>	150 bar (static), 20 bar (rotary), 80 bar (reciprocating)
<b>Shaft Speed</b>	20 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Pumps, valves, mixers, agitators, plunger pumps



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 802SR

New generation packing of homogenous graphited PTFE yarns reinforced with aramid fibre in each yarn with special hollow silicon rubber core pre-lubricated in interlock braid

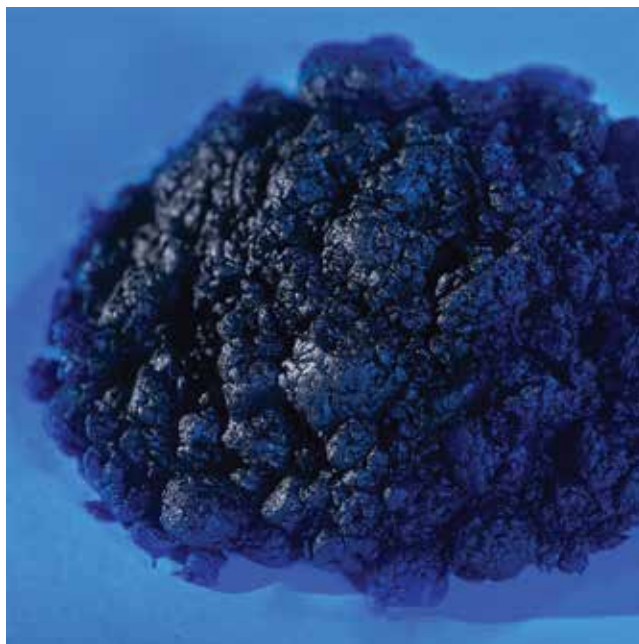
- Excellent chemical resistance, heat dissipating, sliding velocity, low co-efficient of friction properties of PTFE graphite and the abrasion, pressure/extrusion resistance and mechanical strength of aramid
- High quality silicon rubber hollow core provides superb memory and resilience, enabling the packing to withstand shaft deflections/vibrations with ease
- NA 802SR is a soft supple packing, non-abrasive in nature and gentle on the shaft

*Ideal for aggressive chemical fluids operating at high pressures and shaft speeds*

<b>Service Media and Conditions</b>	Chemical and abrasive slurries, sea water, sewage, solvents, aggressive fluids, water, liquor pumps, boiler feed water, hot water, condensate, oils and greases, steam, paper and sugar mill applications etc
<b>Temperature</b>	-100°C to 280°C
<b>Pressure</b>	20 bar (rotary), 80 bar (reciprocating)
<b>Shaft Speed</b>	25 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Stern tubes, rudder posts, dry dock pumps, rotary and reciprocating pumps, valves, mixers, agitators, refiners, digesters, pressure cyclones, dryers etc



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 9000

Insupac mouldable type packing for scored sleeves

- Extremely flexible and malleable 'mouldable' type packing that can conform to any shape in the stuffing box, filling all deformities, irregularities and scorings and cutting out all leak paths
- Excellent chemical resistance, non-scoring and anti-frictional properties—can be used over a wide range of applications
- Manufactured from self-lubricating materials with excellent heat dissipation properties
- Provides optimum sealing effect in conjunction with braided gland packings
- Can be used over a wide range of cross-sections of the stuffing box, eliminating the need to stock various sizes

*Available in stick form, specific sizes also upon request*

<b>Service Media and Conditions</b>	Water, sea water, acids and alkalis, oils, slurries, steam, solvents, dyes and chemicals, abrasives etc
<b>Pressure</b>	8 bar (rotary)
<b>Shaft Speed</b>	6 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Stem tubes, rudder posts, dry dock pumps, rotary and reciprocating pumps, mixers, agitators etc



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA B-3

Expanded graphite packing with Inconel wire mesh jacketing over each yarn

- The most advanced technology valve packing, designed for extreme performance
- Ideal for valves handling superheated and saturated steam, hydrocarbons and chemicals valves
- Packing exhibits extreme pressure and extrusion resistance, serves as an excellent wiper ring in a valve packing set
- The packing exterior is densely impregnated with lubricating agents to reduce stem friction and a corrosion inhibitor to prevent pitting
- High purity of graphite: 99.5–99.9%
- Nuclear grade upon request

*Available in rope and ring forms*

<b>Service Media and Conditions</b>	Superheated and saturated steam, all non-oxidising liquids and gases, hot ash, hydrocarbons, dyes and chemicals, fuel oil and lube oil etc
<b>Temperature</b>	-240°C to 650°C
<b>Pressure</b>	500 bar (static)
<b>pH</b>	0 to 14
<b>Applications</b>	Valves



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA P84

Special blue polyamide yarn braided packing impregnated with PTFE and high viscous lubricant in interlock braid

- A new generation packing made from filament composed of synthetic polyamide
- Excellent mechanical and temperature resistance enables the packing to ensure trouble free performance
- A multipurpose plant wide packing for the pulp and paper industry
- A thorough impregnation of PTFE provides low friction operations and a dense packing without any leak paths
- A non-staining and non-abrasive packing, significantly reduces wear rate than many other packing

*Available in rope and ring form*

<b>Service Media and Conditions</b>	Chemicals, strong acids, moderate alkali, pulp and paper applications, liquor, water, sewage, mines applications etc
<b>Temperature</b>	-80°C to 280°C
<b>Pressure</b>	200 bar (static), 60 bar (rotary), 45 bar (reciprocating)
<b>Shaft Speed</b>	15 m/sec (rotary)
<b>pH</b>	0 to 13
<b>Applications</b>	Pumps, agitators, mixers etc





*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> PTFE V-CUP END RINGS AND BRAIDED INTERMEDIATE RINGS SET

Special packing set consists of sintered PTFE V-packing ring and braided PTFE intermediate ring

*Excellent compressibility*





*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> Resilient Hollow Core Packings

Various fibre braided packings are provided with a silicon rubber hollow hose core for enhancing memory and resilience, allowing the packing to withstand shaft run outs and radial motions/vibrations while controlling leakage with minimal gland adjustments

- The hollow core provides memory, helps the packing retain its original shape and strength

*Helps withstand radial shaft motions/ vibration even excessive shaft run outs*



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> Tank Lid Packing

Sealing of tank lids, inspection and cleaning covers on tankers carrying all known bulk liquid

- Made by spiral wrapping of PTFE tape over a core of elastomer, jacketed with inert polypropylene yarn
- Braided structure is spirally wrapped to provide an impermeable barrier to liquids
- Final jacketing of polypropylene yarn gives complete protection to the packing and makes it abrasion resistant
- The unique core construction enables the packing to be stitched together to form an endless seal, thus preventing the chance of any leakage at the joint

*Also available in endless form for known tank lid size*

<b>Temperature</b>	-40°C to 120°C
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*J D Jones & Co (P) Ltd*



Expanded PTFE Products



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 600 Joint Sealant Tape

Expanded PTFE joint sealant tape with self-adhesive backing strip

- A non-staining and non-contaminating sealant for use in pipe flange
- A low friction sealant with excellent chemical resistance, even against strong acids and caustics
- Wide application in refineries and other industries

*Good modulus of elasticity: 50,000 psi at 22°C*

<b>Service Media and Conditions</b>	Compatible in strong acid and alkali media, affected only by elemental fluorine and molten alkali metals
<b>Temperature</b>	-232°C to 315°C
<b>pH</b>	0 to 14
<b>Applications</b>	Flanges





*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 610 Gasketing Sheet

Expanded PTFE sheet gasket

- A non-staining and non-contaminating sealant for use in pipe flange
- A low friction sealant with excellent chemical resistance, even against strong acids and caustics
- Wide application in refineries and other industries

*Good compressibility and recovery*

<b>Service Media and Conditions</b>	Compatible in strong acid and alkali media, affected only by elemental fluorine and molten alkali metals
<b>Temperature</b>	-232°C to 315°C
<b>pH</b>	0 to 14
<b>Applications</b>	Flanges



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## Pacmaan<sup>®</sup> NA 620 Valve Stem Packing

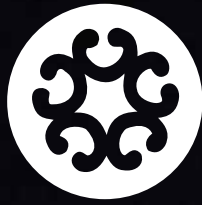
All purpose, self forming PTFE valve stem packing

- A non-staining and non-contaminating packing for use in valve stems
- A low friction packing with a high degree of pliability enabling it to conform to valve stuffing box flaws and irregularities
- Excellent chemical resistance even against strong acids and caustics

*Easy to install, requiring minimum inventory*

<b>Service Media and Conditions</b>	Compatible in strong acid and alkali media, affected only by elemental fluorine and molten alkali metals
<b>Temperature</b>	-232°C to 315°C
<b>pH</b>	0 to 14





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Industrial Polymer Products



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## Pacmaan<sup>®</sup> Industrial Polymer Machine Products

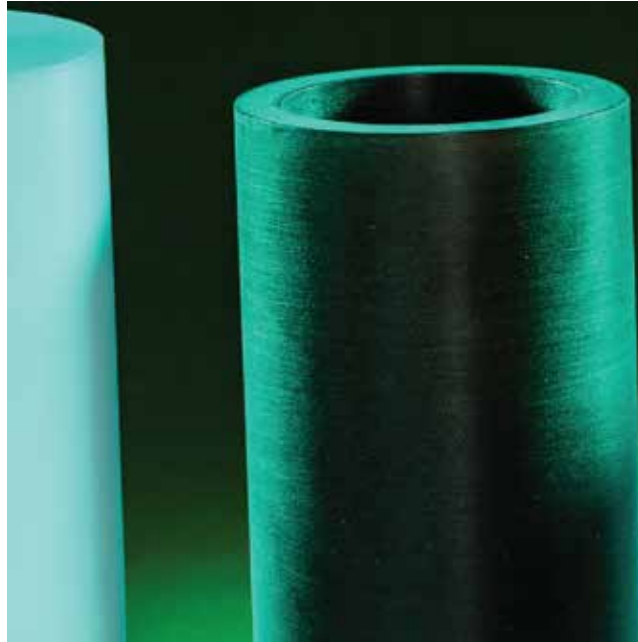
PTFE/PEEK/TFM/RTFE—filled grades of polymers

- Polymers from top international sources
- Compression moulding by state-of-the-art semi-automatic hydraulic press
- Sintering in fully automatic oven with preset temperature cycle option
- Machining by conventional turning machines or modern CNC machines
- Wire winding, spring loading option available in panel operated special purpose machine
- Special profile machining
- Annealing of part according to customers requirements/ application demands

*Development of parts as per customers' need*



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> PTFE + RPTFE Rods/Bushes/Sheets/Machined Components

PTFE/PEEK/TFM/RTFE—filled grades of polymers

- Moulded, sintered, precision machined parts available in Virgin as well as with fillers such as carbon, graphite, glass, mos2, bronze, special compositions

*Rods, bushes, sheets, gland packing sets, compressor bearing rings/piston rings/sealing rings, seal rings, ball valve seats, valve bearings, paper mill machinery components, valve bearings, custom-made parts*



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## What is PTFE?

Polytetrafluoroethylene (PTFE) is a synthetic material accidentally invented in the late 1930s while a chemist was endeavoring to develop a new type of perfluoroethylene-based refrigerant. Rather than achieving a chlorofluorocarbon, the scientist was surprised to find that the perfluoroethylene used in the process reacted with the iron content of its container and polymerised under pressure. Less than a decade later, this new material was being distributed on a commercial scale and was eventually patented under the name Teflon®.

Polytetrafluoroethylene (PTFE) is formed by the polymerisation of tetrafluoroethylene (TFE). The basic properties of PTFE stem from a very strong chemical bond between the carbon and fluorine atoms. PTFE has a most unique position in the plastics industry because of its chemical inertness, heat resistance, excellent mechanical, dielectric, anti-adhesion properties and low coefficient of friction over a broad service temperature and pressure ranges. The above properties assure wide application of this material in all industrial sectors.

During WWII, PTFE was used in the Manhattan Project to prevent the escape of radioactivity from the facility designated to produce the first atom bomb. The uranium hexafluoride was housed on an impressive piece of real estate measuring more than 2 million square feet (609,600 sq m). Apart from being highly toxic and corrosive in itself, it forms hydrogen fluoride, a dangerous gas, in the presence of moisture. PTFE was therefore used to coat the pipes, in order to make them leak proof.

The exceptional insulating properties of PTFE made it ideal for use in electronic components. First, it is non-conductive, which makes it resistant to high electric fields. Furthermore, it is highly resistant to water, heat, and chemical corrosion. As a result, it is also used to make laboratory equipment that comes into contact with hydrofluoric acid, which dissolves other materials, even glass.

PTFE also possesses very low frictional properties, traditionally represented by the term coefficient of friction. This measurement is relative and differs according to the materials brought into contact to generate or simulate friction. For plastics, friction is usually observed against polished steel. To place the low friction coefficient of PTFE in perspective, it is the only known synthetic surface material to which the toe pads of a gecko fail to stick. This quality makes it suitable for manufacturing parts that need to resist friction, such as gears and ball bearings.

PTFE is made up of carbon and fluorine atoms. The fluorine atoms are just the right size to form a helical shield around the carbon atoms. Because nothing can get close enough, this prevents any chemical attack on the carbon atoms. Fluorine is an extremely reactive element and the chemical bond between it and carbon is one of the strongest in organic chemistry. This is why PTFE can be attacked under only extreme conditions. The forces between polymer chains are extremely small, which gives PTFE its excellent low coefficient of friction.



*JD Jones & Co (P) Ltd*



## At JD Jones

We specialise in manufacturing PTFE/RPTFE/TFM machined component from resin by moulding, sintering and machining for a range of industries such as valve manufacturers, aerospace, semi-conductors, corrosive chemical plants, cryogenic valves, petrochemicals, oil and gas. We also offer semi-finished products including rods, tubes and sheets. Our materials are assuredly of the highest quality through mechanical property testing. All of our materials are tested on-site to International Standards so that we can maintain a product of a consistent quality without impacting on lead times.

### Beneficial Properties

- Superior chemical resistance
- Low coefficient of friction
- Near zero stick/slip force
- Wide temperature range
- Low moisture absorption
- High electrical resistance
- FDA approved grades available





## *J D Jones & Co (P) Ltd*

### Materials Include

PTFE, TFM, RPTFE such as carbon filled, glass filled, glass + MoS2 filled, glass + graphite + carbon filled, calcium metasilicate filled, carbon filled with ECG alloy 88, PEEK filled and many more.

Test Parameter	Color	Filler Content (%)	Working Temperature
Virgin PTFE	Milky White	NIL	Upto 250°C
25% Glass Filled PTFE	Off White	25% Glass	Upto 250°C
15% Carbon Filled PTFE	Grey	15% Carbon	Upto 250°C
25% Carbon Filled PTFE	Grey	25% Carbon	Upto 250°C
15% Glass Filled PTFE	Off White	15% Glass	Upto 250°C
60% Bronze Filled PTFE	Brownish	60% Bronze	Upto 250°C
55% Br+ 5% MOS2 Filled PTFE	Brownish	55% Br + 5% MOS2	Upto 250°C
10% Glass + 9.4% Carbon + 0.6% Graphite filled PTFE (RTFE)	Blackish	10% Glass + 9.4% Carbon + 0.6% Graphite	Upto 250°C
20% Glass + 5% MOS2 filled PTFE	Grey	20% Glass + 5% MOS2	Upto 250°C
15% Graphite Filled PTFE	Off White	15% Graphite	Upto 250°C
17% Peek + 3% MOS2 filled PTFE	Dark Grey	17% Peek + 3% MOS2	Upto 250°C
12% Calcium Metasilicate + 3% MOS2 filled PTFE	Grey	12% Calcium Metasilicate + 3% MOS2	Upto 250°C
20% Peek filled PTFE	Dark Grey	20% Peek	Upto 250°C
35% Carbon filled PTFE	Ash	35% Carbon	Upto 250°C
TFM	Milky White	NIL	Upto 250°C
15% Glass + 9.4% Carbon + 0.6% Graphite filled PTFE (RTFE)	Blackish	15% Glass + 9.4% Carbon + 0.6% Graphite	Upto 250°C



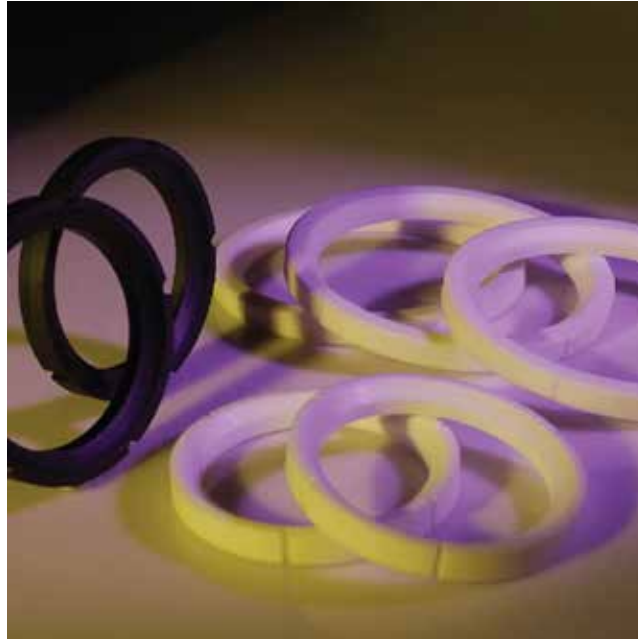


## *J D Jones & Co (P) Ltd*

<b>Test Parameter</b>	<b>Tensile Strenght (PSI)</b>	<b>Compressive Strenght (kgf/cm2)</b>	<b>Elongation (%)</b>	<b>Hardness (Shore D)</b>	<b>Specific Gravity (g/cc)</b>
Virgin PTFE	3700 min	40-50	275 min	50-65	2.13-2.19
25% Glass Filled PTFE	2465 min	75-85	210 min	60-65	2.2-2.25
15% Carbon Filled PTFE	2320 min	65-75	210 min	60-65	2.1-2.15
25% Carbon Filled PTFE	1775 min	75-85	110 min	70-75	2.12-2.14
15% Glass Filled PTFE	2415-3408	65-75	270-350	58-62	2.15-2.22
60% Bronze Filled PTFE	1420-2840	115-125	150-300	64-68	2.16 min
55% Br+ 5% MOS2 Filled PTFE	1562-2274	115-125	150-300	64-68	3.8-4.0
10% Glass + 9.4% Carbon + 0.6% Graphite filled PTFE (RTFE)	3124-3905		170-210	62-64	3.8-4.0
20% Glass + 5% MOS2 filled PTFE	2840-3408	65-75	240-320	60-65	2.20-2.24
15% Graphite Filled PTFE	1990-2698	65-75	180-230	60-65	2.10-2.16
17% Peek + 3% MOS2 filled PTFE	1704-2556	55-75	140-180	63-65	
12% Calcium Metasilicate + 3% MOS2 filled PTFE	3000 min		200 min	62 min	2.24 min
20% Peek filled PTFE	1735 min	55-75	145 min	60-65	1.6-1.9
35% Carbon filled PTFE	1420-2485	80-90	90-125	72-80	2.11-2.13
TFM	4047 min	45-55	400 min	56-62	2.15-2.2
15% Glass + 9.4% Carbon + 0.6% Graphite filled PTFE (RTFE)	2897 min		180 min	62-64	2.16 min



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## Valve Seats

Valve seats and seats are can be made using PTFE, RPTFE, TFM. At JD Jones, these products are available in a range of dimensions and profiles and are customisable based on customer requirements and OEM drawings.

Aside from standard parts, we also manufacture customised components to suit specific customer requirements and end-use applications.

Our Products Includes

- PTFE and RPTFE back-up rings
- Thrust washers
- Ball Valve Seats
- Butterfly Valve Seats
- Piston Ring Seals
- Rotary Shaft Seals
- Spring-energised Seals
- Actuator Joint Bush
- PTFE/RPTFE Specialised Gaskets



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> RTFE Seats with Wire Winding

Reinforced PTFE seats for butterfly valve with wire winding

- Made from reinforced PTFE having 10% chopped glass, 9.4% carbon and 0.4% graphite filler\* to achieve good hardness
- The seat is winded with special quality SS wire for better flexibility and resiliency
- The seat is manufactured by compression moulding at high pressure 450 kg/cm<sup>2</sup> to achieve excellent structure strength
- Ideal valve seat for butterfly valves
- Available in different sizes and profiles according to specific drawing
- Approved by TYCO for their K-LOK high performance butterfly valve
- \*Also available in different material of construction as per specific requirement

*Parameter Value Chemical Composition (Seat Material) 80% PTFE, 10% chopped glass, 9.4% carbon, 0.6% graphite\* Hardness (Seat material) 60–70 Shore D Wire Material ASTM A313 Wire Diameter 0.20 mm*





*J D Jones & Co (P) Ltd*



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**Insulation**

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*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> Glass Fibre Rope

Glass fibre rope made from glass fibre yarn

- Excellent insulation rope that offers good flexibility, dimensional stability and high tensile strength
- Resistance to many acids and alkalis, most bleaches and solvents

*Available in rope form in circular, square and rectangular cross-sections*

<b>Temperature</b>	650°C
<b>Applications</b>	Broad variety of industrial insulations





*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 550 Ceramic Rope

Ceramic fibre braided high temperature insulation rope reinforced with e-glass fibre

- The best choice for thermal insulation
- Withstands up to 1,260°C
- Much better substitute for conventional asbestos ropes, which are not meant for use over 450°C
- Manifold service life in comparison to the life than asbestos ropes
- Very low loss upon ignition
- Saves energy loss, reduces downtimes

*Available in square as well as round cross sections in braided or twisted forms*

<b>Service Media and Conditions</b>	Direct exposure to flame, hot blast, molten alumina, acids and alkalis
<b>Temperature</b>	1260°C
<b>Applications</b>	Boiler doors, expansion joints, coke ovens, kiln cars, blast furnaces, pipe wrapping, lagging etc





*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 550G

Ceramic fibre braided thermal insulation rope surface coated with graphite emulsion

- One of the best choices for thermal insulation
- Withstands up to 1,260°C
- Much better substitute for conventional asbestos ropes, which are not meant for use over 450°C
- Manifold service life in comparison to the life of asbestos rope
- Saves energy loss, reduces downtimes
- Available in square as well as round cross sections in braided or twisted form

*SS wire, Inconel wire, monel wire reinforcements are also available*

<b>Service Media and Conditions</b>	Direct exposure to flame, hot blast, molten alumina, acids and alkalis
<b>Temperature</b>	1260°C



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## Pacmaan<sup>®</sup> NA 551

Ceramic fibre braided high temperature insulation rope with a core of high grade silica fibre

- The best choice for thermal insulation
- Withstands up to 1260°C
- Much better substitute of conventional asbestos rope which is not meant for use over 450°C
- Manifold service life in comparison to asbestos rope
- Very low loss upon ignition
- Saves energy loss, reduces downtimes

*Available in square as well as round cross-sections in braided or twisted forms*

<b>Service Media and Conditions</b>	Direct exposure to flame, hot blast, molten alumina, acids and alkalis
<b>Temperature</b>	1,260°C
<b>Applications</b>	Boiler doors, expansion joints, coke ovens, kiln cars, blast furnaces, pipe wrapping, lagging etc



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## Pacmaan<sup>®</sup> NA 552

Silica fibre braided high temperature insulation rope

- The best choice for thermal insulation—withstands up to 1,260°C continuous temperature
- Much better substitute to conventional asbestos ropes, which are not meant for use over 450°C
- More effective than ceramic and glass rope
- High grade silica fibre resists elevated temperature for longer duration without any thermal degradation
- Practically unaffected by direct flame, hot blast, molten metal, welding sparks and flux
- Zero loss on ignition
- Saves energy loss, reduces downtimes

*Available in square as well as round cross-sections in braided or twisted forms*

<b>Service Media and Conditions</b>	Direct exposure to flame, hot blast, molten alumina, acids and alkalis
<b>Temperature</b>	1260°C
<b>Applications</b>	Boiler doors, expansion joints, coke ovens, kiln cars, blast furnaces, pipe wrapping, lagging etc



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 555 Ceramic Cloth/Tape

Ceramic fibre woven cloth reinforced with e-glass fibre

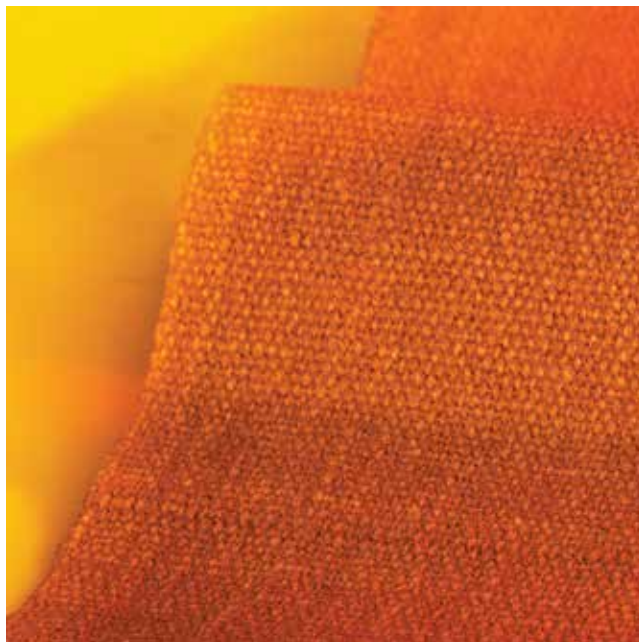
- Excellent insulation cloth that withstands up to 1,250°C
- Much better substitute of conventional asbestos cloth which are not meant for use over 450°C
- Manifold service life in comparison to the life of asbestos cloth
- Very low loss upon ignition
- Available in rolls, thickness of 2 mm, 3 mm and 5 mm etc; width of 1 m
- SS wire reinforced rope cloth available upon request

*Ceramic tapes also available*

<b>Service Media and Conditions</b>	Direct exposure to flame, hot blast, molten alumina, acids and alkalis
<b>Temperature</b>	1260°C
<b>Applications</b>	Boiler and turbine covers, pipe wrapping, other insulation purposes



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 555V

Ceramic fibre cloth with a special high temperature coating

- Excellent insulation cloth to withstand temperature up to 1,260°C
- Much better substitute of conventional asbestos cloth which is not meant for use over 450°C
- Manifold service life compared to conventional asbestos/ceramic/glass fabrics
- Very low loss upon ignition
- Both sides impregnated with special high temperature coating to avoid flow even at elevated temperatures
- Available in rolls of different thicknesses—2 mm, 3 mm, 5 mm etc and width of 1 metre

*SS/Inconel wire reinforcements also available upon request*

<b>Service Media and Conditions</b>	Direct exposures to flame, hot blast, coal ash, molten alumina, acids and alkalis
<b>Temperature</b>	1260°C
<b>Applications</b>	Pipe wrapping, flange wrapping, insulation booth for on-site welding, grinding etc, boiler and turbine covers and other insulation purposes





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## Pacmaan<sup>®</sup> NA 556

Pure silica fibre woven high temperature cloth

- High grade silica fibres resist elevated temperatures for longer durations without any thermal degradation
- Ultra low loss upon ignition
- Practically unaffected by direct flame, hot blast, molten metal, welding sparks and flux
- A much better alternative to asbestos, fibre glass and asbestos cloth

*The best insulating cloth in the market today*

<b>Service Media and Conditions</b>	Direct exposure to flame, hot blast, molten alumina, acids and alkalis
<b>Applications</b>	Boiler & Turbine Covers, Pipe wrapping, Welding cover/blanketing, Protective covers from heat/molten metals, other insulation purposes



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 557V Silica Fibre Cloth

Pure silica fibre woven high temperature cloth with a special high temperature resistant coating

- High grade silica fibres resist elevated temperatures for longer durations without any thermal degradation
- Zero loss upon ignition
- Practically unaffected by direct flame, hot blast, molten metal, welding sparks and flux
- A much better alternative to asbestos, fibre glass and asbestos cloth
- The best insulating cloth available in the market today

*Available in width of 1 m approximate; thickness 1 mm+*

<b>Service Media and Conditions</b>	Direct exposure to flame, hot blast, molten alumina, acids and alkalis
<b>Temperature</b>	1260°C
<b>Applications</b>	Boiler and turbine covers, pipe wrapping, welding cover/blanketing, protective covers from heat/molten metals, other insulation purposes



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## Pacmaan<sup>®</sup> NA 558 GLASS ROPE

Glass fibre rope made from glass fibre yarn

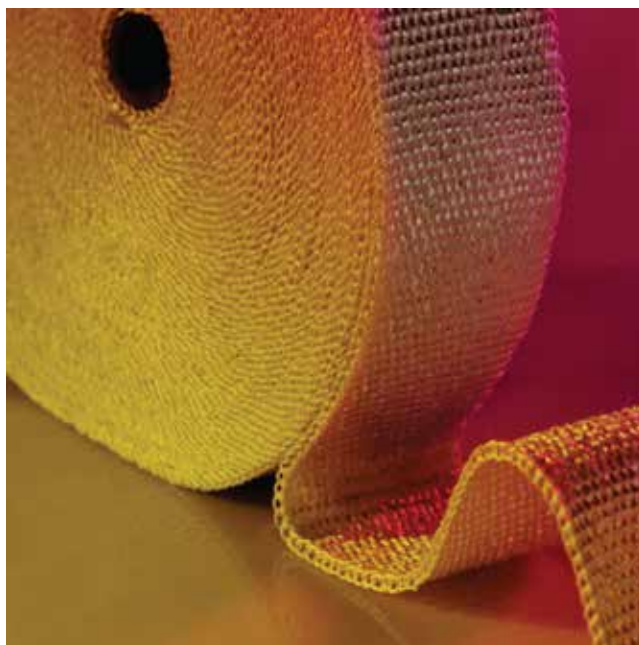
- Excellent insulation rope that offers good flexibility, dimensional stability and high tensile strength
- Resistance to many acids and alkalis, most bleaches and solvents

*Available in rope form in circular, square and rectangular cross-sections*

<b>Temperature</b>	600°C
<b>Applications</b>	Broad variety of industrial insulations.



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 559 Woven Glass Fibre Cloth/Tape

NA 559 Woven Glass Fibre Cloth/Tape

- Fibre glass woven tape made from fibre glass yarn
- Excellent insulation tape that offers good flexibility, dimensional stability and high tensile strength
- Resistant to many acids and alkalis, most bleaches and solvents

*Available in rolls of different thicknesses and widths*

<b>Temperature</b>	650°C
<b>Applications</b>	Wrapping insulation, gasket sealing in a broad variety of industrial and marine applications



*J D Jones & Co (P) Ltd*

## Pacmaan<sup>®</sup> Special Insulation

Ceramic fibre braided rope with black silicon rubber core, surface coated with red silicon rubber solution

- Specially developed as lid seal to hold vacuum within crucible of molten aluminium
- Jacketing of ceramic fibre yarn over a hollow resilient rubber core
- Surface coated with red colour silicon rubber solution for abrasion resistance
- Withstands temperature and compressive loads

*Withstands repeated opening/closing cycles*

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**Service Media and Conditions**

Lid seal to hold vacuum within crucible of molten aluminium

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## Pacmaan<sup>®</sup> Yoke Air Sealing

Silica fibre braided insulation rope with a unique special alloy core

- A new generation insulating packing rope made from high grade silica fibres with a resilient core
- Silica fibres are practically untouched by elevated temperatures, with no signs of thermal degradation at extreme conditions
- The unique 'soft core' construction made from special alloy wires provides excellent memory/resilience to the packing rope, making it reusable in certain conditions
- Much better alternative to conventional insulating packings such as asbestos, fibre glass, ceramic etc
- Lasts longer than any other material

*Available in a wide range of sizes*

<b>Service Media and Conditions</b>	Direct exposure to flame, hot blast, molten alumina, acids and alkalis
<b>Temperature</b>	1260°C
<b>Applications</b>	Boiler doors, expansion joints, coke ovens, kiln cars, blast furnaces, pipe wrapping, lagging etc



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**Graphite Sealing Products**

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## Pacmaan® GRAPHITE BUSH WITH SS EYELET

Flexible graphite sleeve with SS eyelet

- Made by compressing spirally wrapped graphite tapes and SS eyelet
- High purity of graphite with low chloride, sulphur, fluoride, ash content etc with no binders
- Self lubricating packing with extremely low friction characteristics, resistant to water, steam and oil
- Suitable for high pressure and high temperature applications.
- Packing sleeves are used in many brands of gauge cock, to prevent leakage and to ensure effective operation. The controlled compression ensures a standard, quality product

*Standard sizes as per table, custom made size is also available*

<b>pH</b>	0 to 14
<b>Applications</b>	Water level gauge for boiler





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## Pacmaan<sup>®</sup> NA 703

Special combination packing set of braided and die moulded flexible graphite rings

- Top and bottom anti-extrusion rings of braided flexible graphite with Inconel wire (single oblique cut)
- Intermediate rings of die moulded graphite (endless/2 halves)
- Ideal for frequently operated control valves handling superheated and saturated steam, hydrocarbons and chemicals valves
- The set has superb resilience

*Ready to use ring sets*

<b>Service Media and Conditions</b>	Superheated and saturated steam, all non-oxidising liquids and gases, hydrocarbons, dyes and chemicals, fuel oil and lube oil etc
<b>Temperature</b>	-200°C to 540°C
<b>Pressure</b>	350 bar (static)
<b>pH</b>	0 to 14
<b>Applications</b>	Valves



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## Pacmaan<sup>®</sup> NA 704

Special combination set of flexible pure graphite braided and moulded rings for soot blowers

- Unique design for super performance
- Top and bottom rings of braided flexible graphite with Inconel wire (single oblique cut)
- Intermediate rings of die moulded flexible graphite (endless/2 halves)
- A resilient packing set that resists high temperatures to give a long service life
- Approved by a host of OEMs

*Usually manufactured in chevron cross-sectional profile, also available in square/ rectangular cross sections as ready to use ring sets*

<b>Temperature</b>	-200°C to 540°C
<b>Pressure</b>	350 bar (static)
<b>pH</b>	0 to 14
<b>Applications</b>	Soot blower travelling carriage, swivel tube, valve stems, rotary blower etc





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## Pacmaan<sup>®</sup> NA 705

Special combination gland packing manufactured from 4 numbers expanded pure graphite yarn braided packing ring and 5 number separators of flexible pure graphite gasket.

- Manufactured specifically for Bowl Mill Worm Shaft
- It is incorporated with a sacrificial metal corrosion inhibitor to protect the shaft from galvanic corrosion

*It provides an excellent seal not only against oil but also fine coal dust*

<b>Temperature</b>	600°C
<b>Pressure</b>	300 bar (static)
<b>pH</b>	0 to 14
<b>Applications</b>	Bowl Mill Worm Shafts



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 706

High quality flexible graphite sheets

- Superb resistance to aggressive media, including steam, up to 650°C
- Excellent replacement for conventional gasketing solutions
- Available in thicknesses of 1 mm, 1.5 mm, 2 mm, 3 mm and 5 mm; widths of 1000 x 1000 mm, 1500 x 1500 mm and 2000 x 2000 mm

*Gaskets cut to your size/profile also available*

<b>Service Media and Conditions</b>	Acids, alkalis, hydrocarbons, superheated steam, oils and gases, chemicals etc
<b>Temperature</b>	600°C
<b>pH</b>	0 to 14



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 706 T PCD GASKET

High quality flexible graphite gasket with bolt hole

- Superb resistance to aggressive media, including steam, up to 650°C
- Excellent replacement for conventional gasketing solutions

*Gaskets cut to your size/profile also available*

<b>Service Media and Conditions</b>	Acid/alkali, hydrocarbons, superheated steam, oils and gases, chemicals etc
<b>Temperature</b>	600°C
<b>pH</b>	0 to 14



*J D Jones & Co (P) Ltd*



## Pacmaan<sup>®</sup> NA 706M Graphite Gasketing Sheet

High quality flexible graphite sheets with SS foil inserts

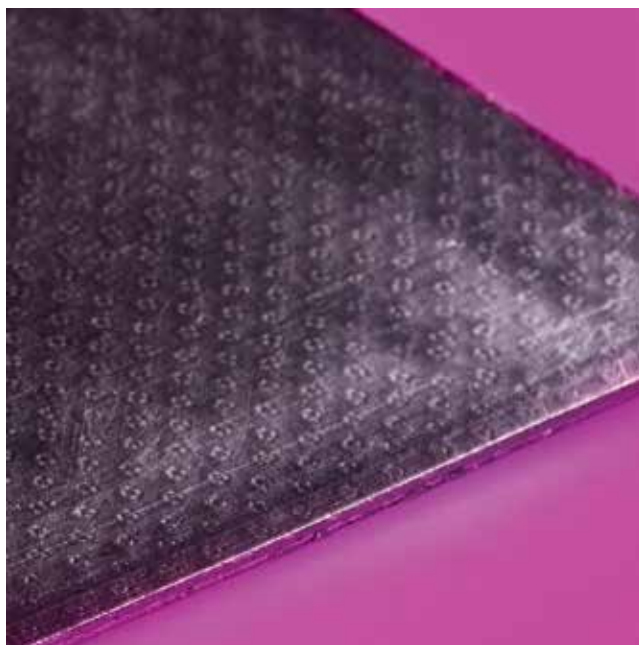
- Flexible graphite foil mechanically clinched to 0.1 mm thick stainless steel foil
- Superb resistance to aggressive media, including steam up to 650°C
- Excellent replacement of conventional gasketing solutions
- Available in thicknesses of 1 mm, 1.5 mm, 2 mm, 3 mm and 5 mm; widths of 1000 x 1000 mm, 1500 x 1500 mm and 2000 x 2000 mm
- Special sizes upon request

*Gaskets cut to your size/profile also available*

<b>Service Media and Conditions</b>	Acid/alkali, hydrocarbons, superheated steam, oils and gases, chemicals etc
<b>Temperature</b>	600°C
<b>pH</b>	0 to 14



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## Pacmaan<sup>®</sup> NA 706T/TX Tanged Gasketing Sheet

High quality flexible graphite sheets with SS tanged inserts

- Flexible graphite foil mechanically clinched to 0.1 mm thick stainless steel tanged/perforated metal sheet
- Superb resistance to aggressive media, including steam up to 650°C
- Excellent replacement of conventional gasketing solutions
- Standard reinforcement of SS 304—For reinforcement of SS 316, please enquire for NA 706TX
- Available in thickness of 1 mm, 1.5 mm, 2 mm, 3 mm and 5 mm; width of 1000 x 1000 mm, 1500 x 1500 mm and 2000 x 2000 mm
- Special sizes upon request

*Gaskets cut to your sizes/profile also available*

<b>Service Media and Conditions</b>	Acid/alkali, hydrocarbons, superheated steam, oils and gases, chemicals etc
<b>Temperature</b>	-200°C to 650°C
<b>Pressure</b>	140 bar (static)
<b>pH</b>	0 to 14





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## Pacmaan<sup>®</sup> NA 707

Flexible graphite moulded packing rings

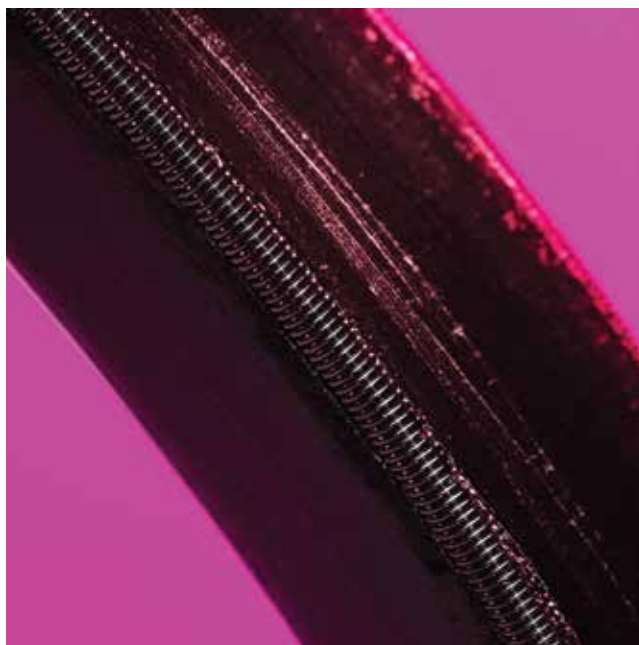
- Made by compressing spirally wrapped graphite tapes
- High purity of graphite with low chloride, sulphur, fluoride, ash content etc with no binders
- Self-lubricating packing with extremely low friction characteristics
- Passed fugitive emissions tests as per Shell SPE MESC 77/312 (as Intermediate Rings with NA 701 packing), Class B
- Nuclear grade on request

*Available in endless, 2 halves oblique cut, single oblique cut*

<b>Service Media and Conditions</b>	Superheated and saturated steam, all non-oxidising liquids and gases, hydrocarbons, dyes and chemicals, fuel oil and lube oil etc
<b>Temperature</b>	-240°C to 540°C
<b>Pressure</b>	350 bar (static), 20 bar (rotary)
<b>Shaft Speed</b>	5 m/sec (rotary)
<b>pH</b>	0 to 14
<b>Applications</b>	Valves



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## Pacmaan<sup>®</sup> NA 707(SC)

Flexible graphite compressed moulded ring in endless form and with incorporation of spring in top and bottom of outer corner

- Made by compressing spirally wrapped graphite tapes with spring reinforcement for high performance, heavy duty valves
- High purity of graphite with low chloride, sulphur, fluoride, ash content etc with no binders
- Remains elastic even with fluctuating temperatures and pressures up to 2,000 Bar
- Self-lubricating packing with extremely low friction characteristics, larger gaps can be controlled by reinforcement of SS springs or caps integrated into the corners

*Available in rectangular and angular cross section, for angular cross section please ask for NA 707 (SCA)*

<b>Service Media and Conditions</b>	Superheated and saturated steam, all non-oxidising liquids and gases, chemicals, fuel oil and lube oil, hot water and feed water, hydrocarbons and many other media Exceptions: Strongly oxidising media
<b>Temperature</b>	-240°C to 540°C
<b>Pressure</b>	550 bar (static)
<b>pH</b>	0 to 14
<b>Applications</b>	Valves



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## Pacmaan<sup>®</sup> NA 708

Flexible graphite tapes

- Flexible graphite tapes available in corrugated as well as non corrugated form, with or without adhesive
- High precision cut graphite tapes for manufacturing of spiral gaskets available, up to 100 m length. Sizes upon request
- Special high performance adhesive backed graphite tapes available—ideal for use in manufacturing gaskets
- High purity of graphite with low chloride, sulphur, fluoride, ash content etc with no binders

*Nuclear grade on request*

<b>Service Media and Conditions</b>	Superheated and saturated steam, all non-oxidising liquids and gases, hydrocarbons, dyes and chemicals, fuel oil and lube oil etc
<b>Temperature</b>	-240°C to 540°C
<b>Pressure</b>	70 bar (static)
<b>pH</b>	0 to 14
<b>Applications</b>	Valves



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## Pacmaan<sup>®</sup> NA 709

Flexible pure graphite preformed gaskets reinforced with SS wire net/sheet

- Much better alternative to spiral wound gaskets and serrated metallic gaskets
- Superb resiliency and compressibility: adapts easily to any flange surface
- Metallic reinforcements provide mechanical strength—helps resist blowouts
- Does not age or creep

*Ready to install gaskets—OD, ID and HT to be specified*

<b>Service Media and Conditions</b>	Superheated and saturated steam, all non-oxidising liquids and gases, hydrocarbons, dyes and chemicals, fuel oil and lube oil etc
<b>Temperature</b>	-240°C to 540°C
<b>pH</b>	0 to 14
<b>Applications</b>	Metallic/glass/enamel flanges



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## Pacmaan<sup>®</sup> NA 710 Pressure Seal Ring

Flexible pure graphite pressure seal ring/self sealing ring reinforced with SS wire net

- Much better substitute for soft iron gaskets
- Vertical reinforcement of SS wire net provides superb mechanical strength
- Does not damage parent equipment
- Approved by a host of valve makers

*All types of cross-sectional profiles available*

<b>Service Media and Conditions</b>	Superheated and saturated steam, all non-oxidising liquids and gases, hydrocarbons, dyes and chemicals, fuel oil and lube oil etc
<b>Temperature</b>	-240°C to 650°C
<b>Pressure</b>	500 bar (static)
<b>pH</b>	0 to 14
<b>Applications</b>	Valve bonnets





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## Pacmaan<sup>®</sup> NA 710V

Flexible pure graphite pressure seal graphite gasket reinforced with SS wire net and with SS anti-extrusion SS end caps on top and bottom

- Much better substitute of soft iron gaskets
- SS 304/316 anti-extrusion end caps on top and bottom provide superb anti-extrusion property
- Vertical reinforcement of SS wire net provides superb mechanical strength
- Does not damage parent equipment
- Approved by a host of valve manufacturers

*All types of cross-sectional profiles available*

<b>Service Media and Conditions</b>	Superheated and saturated steam, all non-oxidising liquids and gases, hydrocarbons, dyes and chemicals, fuel oil and lube oil etc
<b>Temperature</b>	-240°C to 650°C
<b>Pressure</b>	500 bar (static)
<b>pH</b>	0 to 14
<b>Applications</b>	Valve bonnets



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## Pacmaan<sup>®</sup> NA 710VS Pressure Seal Gasket with SS Wire Braided Anti-extrusion End Caps

Flexible pure graphite pressure seal graphite gasket with SS wire braided anti-extrusion

- Much better substitute of soft iron gaskets, a product known to have problems in high temperature and high pressure valves
- SS 304/316 anti-extrusion end caps on top and bottom provide superb anti-extrusion property
- SS wire braided end caps provide Superb Mechanical Strength
- Does not damage parent equipment

*Different types of cross-sectional profiles available*

<b>Service Media and Conditions</b>	Superheated and saturated steam, all non-oxidising liquids and gases, hydrocarbons, dyes and chemicals, fuel oil and lube oil etc
<b>Temperature</b>	-240°C to 650°C
<b>Pressure</b>	500 bar (static)
	0 to 14
<b>Applications</b>	Valve bonnets



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## Pacmaan<sup>®</sup> NA 711

A flexible graphite sealing ring reinforced with SS sheet inside for MS HRH systems

- Ideal for main steam and hot reheat systems of steam turbines
- A high density gasket designed to take extreme pressures, temperatures and operating conditions
- The reinforcement of SS sheet inside enhances extrusion resistance and mechanical strength

*Usually manufactured in angular cross section: other profiles as per the design of the turbine manufacturer*

<b>Service Media and Conditions</b>	Superheated and saturated steam
<b>Temperature</b>	-240°C to 650°C
<b>Pressure</b>	300 bar (static)
<b>pH</b>	0 to 14
<b>Applications</b>	MS HRH systems of steam turbines



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## Pacmaan<sup>®</sup> NA 712

Flexible pure graphite sealing rings designed specially for NRVs such as cold reheat systems

- Flexible pure graphite sealing rings having multi-layered metallic wire mesh on top and bottom: as per latest BHEL spec, square or rectangular sections
- Flexible graphite rings reinforced with SS wire net in square, rectangular or angular section

*Flexible graphite sealing ring in a male and female pair in trapezoidal cut*

<b>Service Media and Conditions</b>	Superheated and saturated steam, all non-oxidising liquids and gases, hydrocarbons, dyes and chemicals, fuel oil and lube oil etc
<b>Temperature</b>	-240°C to 650°C
<b>Pressure</b>	300 bar (static)
<b>pH</b>	0 to 14
<b>Applications</b>	Non-return valve bonnets (CRH NRV)



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## Pacmaan<sup>®</sup> NA 713

It is manufactured from flexible pure graphite foil with a sandwich reinforcement of SS wire net and further spirally coiled wired net

- Gaskets are specially designed for boiler, manhole, pump and valve flange
- Serving as a superior replacement for pure metal and conventional asbestos gaskets

*Presence of graphite foil in the core gives the gasket superior sealing properties*

<b>Service Media and Conditions</b>	Super-heated and saturated steam, hydrocarbons, DM water, mild acid and alkali, fresh and turbid water
<b>Temperature</b>	650°C
<b>Pressure</b>	500 bar (static)
<b>pH</b>	0 to 14
<b>Applications</b>	Boiler man hole, pump and valve flanges.





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## Pacmaan<sup>®</sup> NA 714

Flexible pure graphite die moulded body seals

- High grade flexible graphite die moulded rings in specific dimensions to suit ball valves, trunnion mounted ball valves etc
- The body seals are made accurately with a perfect finish
- High purity of graphite: 99.5–99.9% with low chloride content
- Also available with SS wire mesh reinforcement inside

*Also available with a coating of food grade PTFE for food and pharmaceutical applications*

<b>Service Media and Conditions</b>	Superheated and saturated steam, all non-oxidising liquids and gases, hot ash, hydrocarbons, dyes and chemicals, fuel oil and lube oil etc
<b>Temperature</b>	-240°C to 650°C
<b>pH</b>	0 to 14
<b>Applications</b>	Trunnion mounted ball valves



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## Pacmaan<sup>®</sup> SS Laminated Graphite Ring

Flexible graphite ring with SS lamination for triple off-set butterfly valve

- This laminated ring is composed of alternating layers of alternating layers of metal and graphite using phenolic resin bond
- The layers of graphite compensate for the lack of smooth mating surfaces. The laminated seat ring provides bubble tight shut-off even in gas application
- Each individual layer performs an independent sealing and is unaffected by the damages to other layers
- This construction provides extra rigidity and tensile strength

*Torque seating during closing of the valve provides uniform forces around the entire circumference of the valve seat. The self-adjusting, resilient seal flexes and energises, assuming the shape of the seat. The compression forces equally distributed around the perimeter provide a tight bi-directional shut off. The resiliency of the seal allows the valve body and disc to contract or expand without the risk of jamming due to temperature fluctuations*

<b>Temperature</b>	-240°C to 650°C
<b>Applications</b>	Triple off-set valves generally used in applications that require bi-directional tight shut-off in oil and gas, LNG/NPG terminals and tanks etc



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————— Low Emission Packing —————



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## Pacmaan<sup>®</sup> NA 715

Expanded graphite packing having an Inconel wire mesh jacketing over each yarn, further reinforced with multiple Inconel wire inside each yarn

- A fantastic plant-wide block valve spool packing
- Passed API 589/607 Fire Safe tests from Yarmouth Research and Technology
- Passed API 622 FE test with 3 ppm average leakage from Yarmouth Research and Technology
- Packing exhibits extreme pressure and extrusion resistance
- The packing exterior is densely impregnated with lubricating agents to reduce stem friction and a corrosion inhibitor to prevent pitting
- High purity of graphite: 99.5–99.9%
- Packing set treated with sacrificial corrosion inhibitor to prevent valve stem corrosion

*Available in rope and ring form*

<b>Service Media and Conditions</b>	Superheated and saturated steam, all non-oxidising liquids and gases, hot ash, hydrocarbons, dyes and chemicals, fuel oil and lube oil etc
<b>Temperature</b>	-240°C to 650°C
<b>Pressure</b>	550 bar (static)
<b>pH</b>	0 to 14
<b>Applications</b>	Valves





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## **Pacmaan<sup>®</sup> NA B-3 + 707 Low Emission Packing Set**

Combination set consisting of NA B-3 Inconel jacketed expanded graphite braided packing as end rings and NA 707 flexible pure graphite die-formed packings as intermediate rings

- The most advanced technology valve packing set designed for high pressure application and extreme performance
- Tested at Yarmouth Research and Technology, USA and complied as per API 622, 2nd edition with 25 ppm average leakage
- Tested at Yarmouth Research and Technology, USA as per API 589/607 Fire Safe test
- Packing set made from high quality braided and moulded graphite in a unique configuration
- The braided end rings are excellent wiper rings, prevent build up of free graphite/contamination on the valve stem, increase extrusion resistance, pressure resistance and dimensional stability
- Packing set treated with a high temperature resistant solid lubricating agent to reduce friction even at elevated temperature

*Packing set treated with sacrificial corrosion inhibitor to prevent valve stem corrosion*

<b>Service Media and Conditions</b>	Steam, hydrocarbons, hydrogen, catalysts, oils and gases, acid and alkali etc
<b>Temperature</b>	-196°C to 540°C
<b>Pressure</b>	425 bar (static)
<b>pH</b>	0 to 14
<b>Applications</b>	Valves





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## Pacmaan® NA SP-1 Low Emission Packing Ring Set

The most advanced and revolutionary technology all braided valve packing set designed for extreme performance

- An 'Ultra' low emission packing set tested at Yarmouth Research and Technology, USA and passed as per API 622, 2nd edition with 12 ppm average leakage
- Qualified as per ISO 15848, Part 1 without any gland adjustment for temperature range -196°C to 400°C and up to Class 1500
- Tested at Yarmouth Research and Technology, USA as per API 589/607 Fire Safe test
- Developed after extensive developmental process with series of testing at its own state-of-the-art R&D laboratory
- Tested for weight loss, material test and leachables at Yarmouth Research and Technology, USA weight loss in oxygen-rich environment at 900°F is 2.9% and at 1,000°F is 14.3%

*Packing set treated with sacrificial corrosion inhibitor to prevent valve stem corrosion*

<b>Service Media and Conditions</b>	Steam, hydrocarbons, hydrogen, catalysts, oils and gases, acid and alkali etc
<b>Temperature</b>	-196°C to 450°C
<b>pH</b>	0 to 14
<b>Applications</b>	Valves



*J D Jones & Co (P) Ltd*

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# **Rolgard<sup>®</sup>**

**PTFE Reinforced Grease**  
**The Energy Saver**



 *J D Jones & Co (P) Ltd*

 *J D Jones & Co (P) Ltd*



## ***Rolgard® the high performance PTFE fortified lithium based grease***

Rolgard® is a unique high-performance and high-temperature lithium based grease reinforced with PTFE. Rolgard® deposits a fine, tenacious, clinging film on the applied metal surface and the innumerable micro particles of PTFE act as tiny ball bearings that help minimise friction and temperature buildup.

The presence of PTFE in Rolgard® helps propagate smoother movement between movable and interfacing parts even at high speeds and temperatures.

- ⊗ The grease is known to be mechanically and chemically stable, providing effective lubrication at temperatures upto 250°C
- ⊗ Excellent for all metal to metal lubrication
- ⊗ Chemically and mechanically stable. Does not soften or harden, unlike ordinary greases
- ⊗ Excellent thermal stability. Resists oil separation and does not migrate from hot surfaces
- ⊗ Withstands a wide temperature range, -5 to +250°C
- ⊗ Excellent shear stability. Remains where originally applied for extended periods
- ⊗ Reduces friction and wear
- ⊗ Cuts wasteful energy consumption
- ⊗ Controls heat build-up. Safeguards your precious equipment
- ⊗ Reduces noise and vibration, especially in large gears
- ⊗ Contains no chlorine which has been known to promote corrosion
- ⊗ Contains no silicone which has been known to cause migration problems
- ⊗ High di-electric strength
- ⊗ Offers greater malleability than graphite, MoS<sub>2</sub> and other solid lubricants
- ⊗ Joints treated with Rolgard® are easily dismantled, even after years
- ⊗ Increases life of equipment
- ⊗ Minimises downtime and maintenance costs

## Test results of Rolgard®

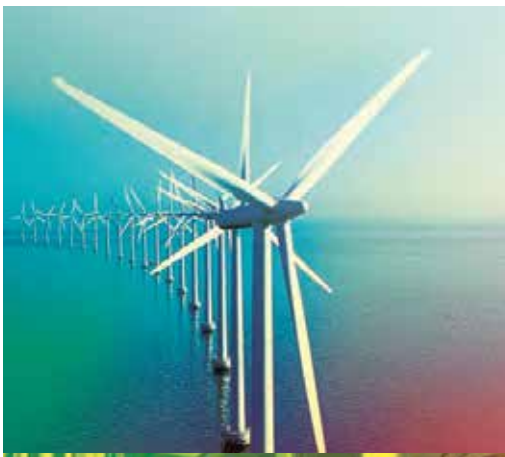
Rolgard® has been tested for different relevant parameters as per international standards at the Indian Institute of Petroleum, Dehradun, a unit of the Council of Scientific and Industrial Research. The results have been excellent.

Parameter	Specification	Result
Drop Point	ASTM D-566	256 °C
Evaporation Loss	ASTM D-972	2.56%
Mean Hertz Load and Weld Load	FTM 6503.2	Mean Hertz Load—47 kg Weld Load—224 kg
Oil Separation	FTM 321.2	2.176%
Penetration (Unworked)	ASTM D-217	274 (NLGI 2)
Penetration (Worked—60 Double Strokes)	ASTM D-217	284 (NLGI 2)
Penetration (Worked—1,00,000 Strokes)	ASTM D-217	311
Rust Preventive Property	ASTM D-1743	Pass Rating
Water Washout Characteristics	ASTM D-1264	2.86 %
Gear Wear Test	FTM 335	0.00058 gm/ 1,000 cycles
Wear, Steel on Steel (4 Ball)	ASTM D-2266	0.670 mm (Wear Scar Diameter)
Boiling Water Immersion	FTM 3463.1	No cloudiness and other evidence of emulsification

Copy of complete test report available upon request.

The presence of  
**PTFE in Rolgard®**  
helps propagate  
**smoother movement**  
between movable and  
interfacing parts even  
at high speeds and  
temperatures





## Some Typical Applications

### **Sugar Mills**

Electrical Motor Bearings, Cutters, Levellers, Pre-levellers, Disintegrators, Gear Couplings, Fibrizers, Centrifugals, Pneumatic Valves Cylinders, ID Fans etc.

### **Cement Industry**

Rotary Kiln Car Bearings, Valve Gland Nuts, ID Fans, Electrical Motors, Crushers, Dryers, Vibratory Screens, Air Compressors, Cooler Fans and Motors etc.

### **Glass Manufacturing Industry**

Conveyor Belts, Pusher Bearings, Motors etc.

### **Textile Industry**

Top Rollers and Bushes of DO/2s and DO/6, RSB Draw Frames, Ring Frames, Air Motors and Electrical Motors, High Speed Spindles etc.

### **Wind Mills**

Rotor Main Bearings, Generator Bearings, Blade Pitch Bearings etc.

### **Paper Mills**

Pneumatic Cylinder Drives used on Control Valves, Valve Studs and Bolts, Chain Motors, High Speed Electrical Motors, Dryers, Pulp Washers, Fan Bearings, Coal Crusher Bearings and several Paper Machine Applications etc.

### **Power Plants**

ID Fans, Screw Conveyor Coal Feeder Bearings, Motors and High Speed Applications etc.

### **Aluminium Plants**

Extruders, Motors, Lift Truck Wheel Bearings, Ropes, Gantry Crane Bearings, Slides and Pivots etc.

### **Steel Plants**

Lubrication of Conveyors, ID Fan Bearings, High Speed Blowers, Motors, Grinding Mills, Crushers, Shears, Rolling Mills, Travelling Cranes, Mechanical Presses, Cams, Toggle Joints, Guides, Ways, Slides etc.

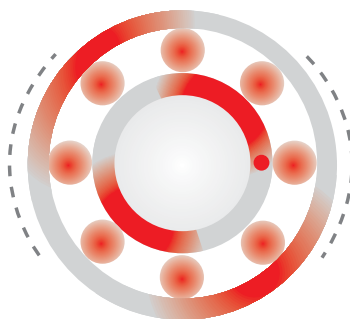
### **Construction Equipment**

Chains of Forklifts, Chassis, Wheel Bearings etc.

### **Auto and Truck Chassis**

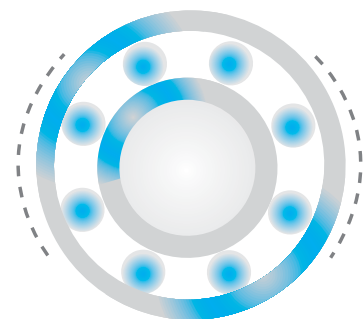
### **Centralised Industrial Greasing System**

In several other applications in general such as **Compressors, Heavy Duty Motors, Power Generating Alternators, Cooling Tower Motors, Irrigation Pumps, Marine Parts etc** to achieve significant reduction in noise, vibration and operating temperature.



### **Without Rolgard®**

Bearing packed with ordinary grease results in heat build-up



### **With Rolgard®**

Bearing packed with Rolgard® runs cooler with minimal friction and wear

## Testimonials

### Larsen & Toubro

We have been facing problems in the abnormal heating of the bearings of fans in the supply of primary air for burning of coal in our rotary cement kiln...with the use of Rolgard® the frequency of re-lubrication has reduced from 1 to 12 weeks and the normal operating temperature has come down from 50°C to 35°C.

### Bacau Wolf

Rolgard® is specially recommended for heavy duty bearing of preparatory devices such as choppers, levellers, fibrizers or shredders and centrifugals.

### SKF Bearing Industries

We have used Rolgard® grease in our compressor, power generating alternator, cooling tower motors, pumps etc and have found the product to be very good. We have noticed significant reduction in noise, vibration and operating temperature of the bearings.

### West Coast Paper Mills Ltd

We have been using Rolgard® from 1980 because of its merits. We have progressively applied it to critical applications in the paper mill such as pulp washers, fan bearings, coal crusher bearings and several paper machine applications. With the use of Rolgard® we have noticed bearing temperature is significantly less leading to improved bearing performance. Rolgard® is now our standard stock item.

### Dhampur Sugar Mills Ltd

We have used Rolgard® in large bearing in the cutters and fibrizers. We have found beneficial results in the form of reduced heat build-up and extended life of the grease used for packing.

### Tata Power

Rolgard® is used in Coal Crushing Bearings and the frequency of re-greasing has reduced from once in one shift to once in six shifts.

### Modi Sugar Mills Ltd

Fibrizer Ordinary Grease lasted for 6/7 days. Cane Chopper Lasted 10/12 days. Cane Kicker Lasted 12/15 days. Hy Duty Motor Lasted for 5/6 days. Rolgard® lasted for more than 200 days. We are using Rolgard® in continuous centrifugal machine also.

### BHEL

This is to certify that we have been using Rolgard® grease manufactured by JD JONES & Co Pvt Ltd for the generator bearings and also for the yaw bearings for the past few years. The performance of the Rolgard® grease has been found to be satisfactory for these applications during this period.

### GRASIM

We are using Rolgard® grease for the lubrication of 500HP, 3000RPM HT motor bearings and it has given satisfactory service with reduction in operating temperature of the bearings.



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