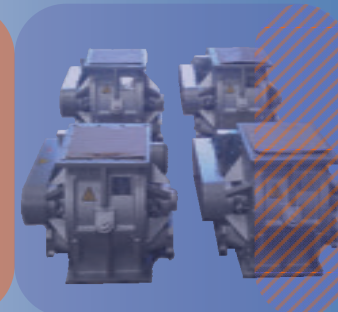
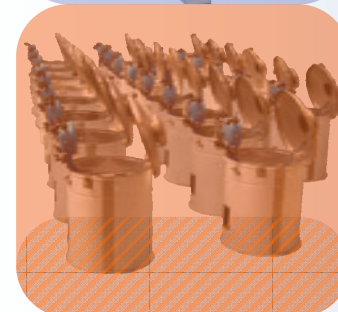
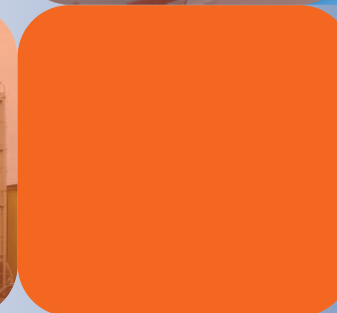
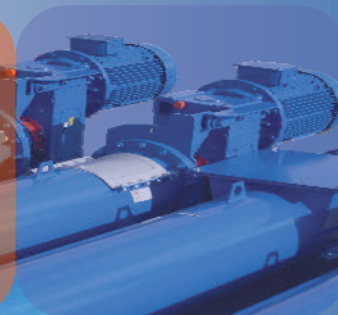
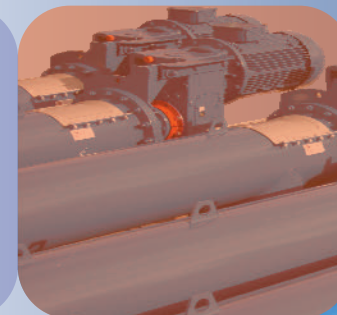
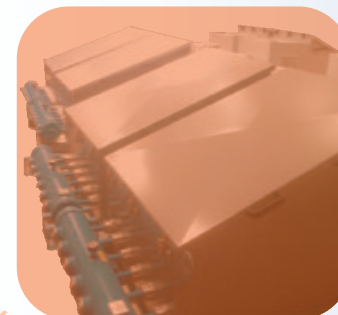




**DRY BULK MATERIALS
HANDLING EQUIPMENT,
DESIGN & SUPPLY SPECIALISTS**

HEAD OFFICE

Unit 14, Brunel Court
Waterwells Business Park
Gloucester UK GL2 2AL



+44 (0)1452 725210

sales@sneng.co.uk

www.sneng.co.uk



**DUST
FILTRATION**



**SCREW
CONVEYING**



**STORAGE
SILOS**



**LOADING
BELLOWS**



**MIXING &
BLENDING**



**PNEUMATIC
CONVEYING**

SN Engineering is a leading supplier of dry bulk materials handling equipment to the UK & European OEM and user markets.

Primarily dealing within the mineral processing industries with diversification into biomass ; water treatment ; food & pharmaceutical processing sectors.

In-house expertise in the design & manufacture of dust filtration units & systems alongside heavy duty loading bellows, the only UK designed & built units, compliments the range of bulk storage silos ; screw & pneumatic conveying equipment ; mixing & blending equipment ; flow control & isolation valves ; level detection & monitoring systems ensures SN Engineering are the first choice selection for partnering when it comes to equipment design ; supply & turnkey projects.

SN Engineering's operation is fully accredited & run in compliance with,

ISO 9001 Quality Management
The world's most recognized quality management standard



DUST FILTRATION

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DUST FILTRATION

SILO VENTING



MAXAIR 24m²

- ◆ LOW PROFILE—SAFE ACCESS HEIGHT
- ◆ HEAVY GAUGE ST ST BODY FOR LONGEVITY
- ◆ HIGH EFFICIENCY BIA CERTIFIED FILTER MEDIAS
- ◆ LOW CAPITAL & THRU' LIFE COSTS
- ◆ SELF CONTAINED, ALL WORKING PARTS WITHIN LID TO ELIMINATE EFFECTS OF WEATHER
- ◆ MEETS UK & EUROPEAN EMISSION COMPLIANCE
- ◆ FAVOURED BY OEM 's & USERS ALIKE
- ◆ STOCKED FOR SAME / NEXT DAY DELIVERY

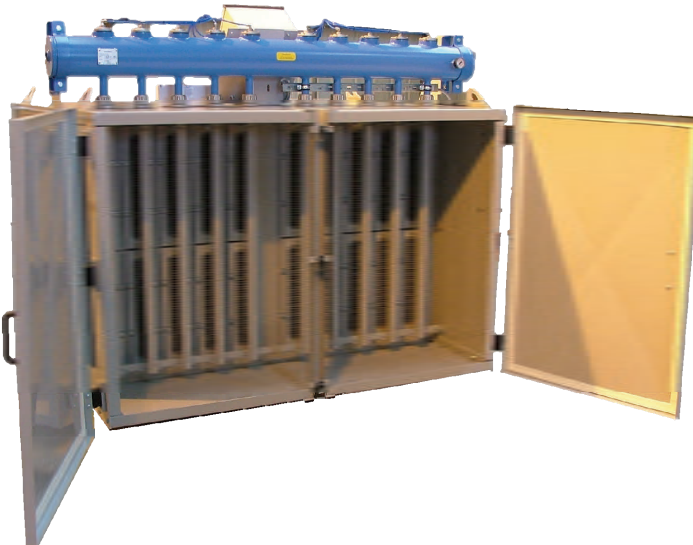
FAN ASSISTED



HEAVY DUTY 24m² FAN ASSISTED

- ◆ INDIVIDUAL UNITS FROM 7 > 250m²
- ◆ HEAVY GAUGE, Sa2.5 & POWDER COATED FOR LONGEVITY, St St OPTION FOR FOOD / PHARM.
- ◆ HIGH EFFICIENCY BIA CERTIFIED FILTER MEDIAS
- ◆ ALL FANS ENCLOSED IN ACOUSTIC ENCLOSURES REDUCING NOISE EMISSIONS BY ~17—20 dB
- ◆ Dp CONTROLLED CLEAN DOWN AS STANDARD, REDUCES AIR CONSUMPTION BY UP TO 40% TYPICALLY
- ◆ MEETS UK & EUROPEAN EMISSION COMPLIANCE
- ◆ CONTINUITY OF MAIN COMPONENTS ACROSS THE WHOLE RANGE

SPECIAL DESIGNS



BE-SPOKE DESIGNS

- ◆ TRADITIONAL & WARDROBE DESIGNS
- ◆ VARIOUS HIGH EFFICIENCY BIA CERTIFIED FILTER MEDIAS MATCHED TO APPLICATION CRITERIA
- ◆ HIGH EFFICIENCY CLEANING SYSTEMS COMBINED WITH LOW PRESSURE DROP MEDIAS GIVES SUPERIOR PERFORMANCE
- ◆ INTEGRAL & STAND ALONE FAN ASSEMBLIES AVAILABLE, MATCHED TO APPLICATION CRITERIA
- ◆ IN-HOUSE DESIGN & BUILD ENSURES QUICK TURNAROUND.

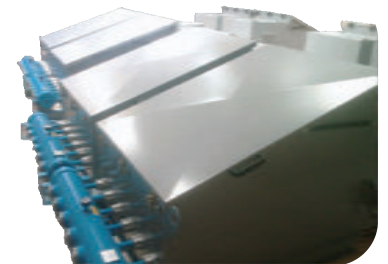
DUST FILTRATION

VARIATIONS



ATEX OPTIONS AVAILABLE

- ◆ INSERTABLE
- ◆ LOWER BODY—DIRTY SIDE



- ◆ HOPPER MOUNTED
- ◆ SPECIAL DESIGNS

AFTERSALES

SPARES

- ◆ FILTER BAGS ; CELLS & CARTRIDGES FOR OWN & MOST MANUFACTURERS COMMONLY FOUND IN THE UK & EUROPEAN INDUSTRIAL SECTORS.
- ◆ SOLENOID & DIAPHRAGM VALVES & KITS
- ◆ PILOT VALVE BOXES & SEQUENTIAL CONTROLLERS



SCREW CONVEYING

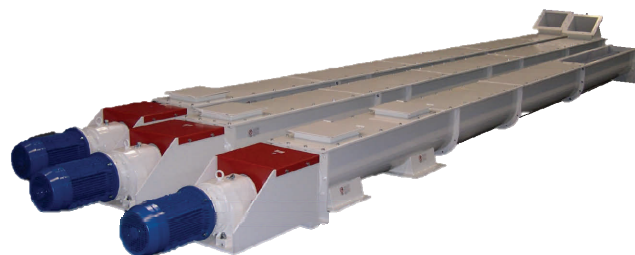
TUBULAR



DUST TIGHT CYLINDRICAL PROFILE

- ◆ INDIVIDUAL UNITS FROM 114Ø > 650Ø, LARGER ON REQUEST
- ◆ CAPACITIES FROM 1 > 300Te/Hr REGULARLY SUPPLIED
- ◆ UNITS UP TO 20m IN LENGTH, 7.5m WITHOUT HANGER
- ◆ 0 > 90° INCLINATIONS CATERED FOR
- ◆ DIRECT DRIVES FROM 5 > 20:1 RATIOS WITH IE2 (min) STD IEC SPEC MOTORS—SIEMENS or ABB AS STD. INDIRECT DRIVES UPTO 100:1
- ◆ DRIVE MOTORS FROM FRACTIONAL Hp TO 50Hp
- ◆ MYRIAD OF FLIGHT DESIGNS & MATERIALS ENABLING FULFILMENT OF MOST APPLICATION NEEDS
- ◆ RANGE OF HANGER & NDE BEARINGS, SELECTED AGAINST PRODUCT CHARACTERISTICS.
- ◆ ARRAY OF INLET & OUTLET OPTIONS, PRE-FITTED @ ANY ANGLE CLIENT REQUIRES
- ◆ PRIMARY SUPPLIER TO UK & EUROPEAN PLANT MANUFACTURERS
- ◆ FINISH Sa2.5 & TOP COATED TO CLIENTS COLOUR PREFERENCE
- ◆  ATEX & ST ST OPTIONS AVAILABLE

U TROUGHS

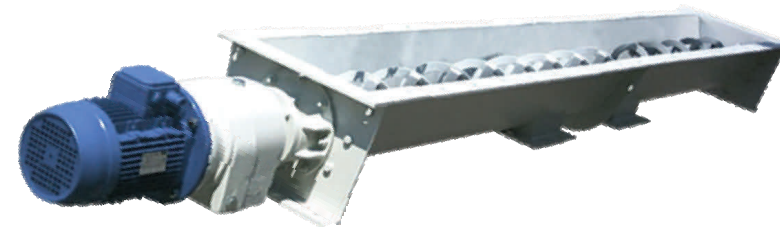


U SHAPE PROFILE

- ◆ SPIRALS FROM 100 > 600Ø, LARGER ON REQUEST
- ◆ CAPACITIES FROM 1 > 300Te/Hr REGULARLY SUPPLIED
- ◆ UP TO 20m IN LENGTH, SHAFTLESS WITHOUT HANGER
- ◆ 0 > 25° INCLINATIONS CATERED FOR, HIGHER INCLINATIONS CAN BE CATERED FOR WITH SPECIAL LID DESIGNS
- ◆ DIRECT & INDIRECT DRIVES FROM 10 > 100:1 RATIOS WITH IE2 (min) STD IEC SPEC MOTORS
- ◆ DRIVE MOTORS FROM FRACTIONAL Hp TO 50Hp
- ◆ MYRIAD OF FLIGHT DESIGNS & MATERIALS, INCL. SHAFTLESS FOR THOSE SPECIAL APPLICATIONS
- ◆ ARRAY OF INLET & OUTLET OPTIONS
- ◆  ATEX & ST ST OPTIONS AVAILABLE

SCREW CONVEYING

V TROUGHS



V SHAPE PROFILE

- ◆ ARRAY OF SHAFTED & SHAFTLESS SPIRALS INCLUDING RIBBON & PADDLE TYPES ≤ 500Ø, LARGER ON REQUEST
- ◆ FROM 1 > 100Te/Hr REGULARLY SUPPLIED
- ◆ UP TO 20m IN LENGTH, SHAFTLESS WITHOUT HANGER
- ◆ GENERALLY SELECTED FOR 0 > 20° INCLINATIONS.
- ◆ NORMALLY DESIGNED “OPEN TOP” BUT CAN BE SUPPLIED WITH BOLT DOWN or QUICK RELEASE INTERLOCKED HINGED LIDS
- ◆ UNIFORMITY OF DRIVES ACROSS WHOLE RANGE ENSURES CONTINUITY THROUGHOUT PLANTS
- ◆ MYRIAD OF FLIGHT DESIGNS & MATERIALS ENABLING FULFILMENT OF MOST APPLICATION NEEDS
- ◆  ATEX & ST ST OPTIONS AVAILABLE

VERTICAL ELEVATORS



VERTICAL SCREW ELEVATORS

- ◆ INDIVIDUAL UNITS FROM 200Ø > 450Ø, LARGER ON REQUEST
- ◆ ELEVATOR LIFTS UP TO 18m CAN BE ACCOMMODATED
- ◆ EXTRA HEAVY GAUGE, MACHINED & DYNAMICALLY BALANCED FLIGHTS ENSURE VIBRATION & NOISE FREE RUNNING
- ◆ SPECIAL FLANGED HANGER BEARINGS FITTED TO MACHINED HOUSING WITH EASY ACCESS
- ◆ DIRECT OR INDIRECT FEED ENSURES INTEGRATION WITH EXISTING EQUIPMENT WHEN NECESSARY.
- ◆ SPECIAL DRIVE ASSEMBLIES WITH THRUST CAPABILITIES ALLOWS FOR NO EXTERNAL BEARING @ BOTTOM

VARIATIONS



HEAVY DUTY CONSTRUCTION



STORAGE SILOS

MONOLITHIC—WELDED



25 > 80m³ CAPACITIES

- ◆ FULLY WELDED CONSTRUCTION—QUICK INSTALL
- ◆ PRESS RIBBED FOR ADDITIONAL STRENGTH & RIGIDITY
- ◆ DUAL DESIGNS—FOR EASE OF ROAD or CONTAINER TRANSHIPPING, ENSURING WORLD-WIDE AVAILABILITY
- ◆ LOW CAPITAL COSTS, MAXIMISING ROI
- ◆ Sa2.5 BLASTED, PRIMED & POLYURETHANE TOP COATED TO CLIENTS COLOUR REQUEST
- ◆ HDG LADDER & PERIMETER HAND RAILING -INT REST PLATFORMS FOR FULL COMPLIANCE
- ◆ FULL RANGE OF DRESSINGS FOR EASE OF SINGLE SUPPLY & SHIPMENT.

TRANSPORTABLE—BOLTED



35 > 900m³ CAPACITIES

- ◆ BOLTED CONSTRUCTION, JIG BUILT, FOR ACCURACY & EASE OF SHIPPING & INSTALLATION
- ◆ OPTIMISED DESIGN ENSURES MINIMAL NUMBER OF PANELS THUS MINIMISING SITE TIME / COSTS
- ◆ RANGE FROM 3.5mØ > 7.6mØ - FOR BIGGER SEE LC
- ◆ OPTIONAL CONE ANGLES, DEPENDANT OF APPLICATION / PRODUCT CHARACTERISTICS
- ◆ SINGLE or TWIN OUTLETS
- ◆ FULLY GUARDED ACCESS LADDERS OR OPTIONAL 'Z' ACCESS STAIRWAY

DOCKSIDE TERMINALS



LOW PROFILE—LOW LOAD BEARING

- ◆ ORIGINALLY DESIGNED FOR 'DOCKSIDE' LOCATIONS—LOW PROFILE ≤15m & LOW LOAD BEARING.
- ◆ OPTIMISED DESIGN ENSURES MINIMAL STATIC LOADINGS—IDEAL FOR LOCATIONS WITH POOR SUBSTRATES
- ◆ CLIENTS CAN SIGNIFICANTLY SAVE COSTS ON CIVIL WORKS v TRADITIONAL VERTICAL STORAGE FACILITIES
- ◆ MODULAR IN DESIGN—EACH MODULE HAS A GEOMETRIC CAPACITY OF 1260m³
- ◆ DESIGNED TO WITHSTAND THE RIGORS OF SHIP UNLOADING

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STORAGE SILOS

LARGE CAPACITY



900 > 2600m³ CAPACITIES

- ◆ BOLTED CONSTRUCTION, JIG BUILT, FOR ACCURACY & EASE OF SHIPPING & INSTALLATION
- ◆ OPTIMISED DESIGN ENSURES MINIMAL NUMBER OF PANELS THUS MINIMISING SITE TIME / COSTS
- ◆ RANGE FROM 9.5mØ > 12.5mØ
- ◆ OPTIONAL CONE ANGLES, DEPENDANT OF APPLICATION / PRODUCT CHARACTERISTICS
- ◆ SINGLE or TWIN OUTLETS & FULLY AERATED CONES
- ◆ ROOF PENTHOUSES AVAILABLE TO PROTECT FILTERS & CONVEYING EQUIPMENT Etc...
- ◆ FILLING LINES—UP TO 400Ø WITH CRASH BOXES &/OR DIVERT LINES EASILY INCORPORATED

VARIATIONS



SAMPLE OF SOME VARIATIONS

- ◆ FULLY SKIRTED OPTION HAS BEEN ADDED TO THE 3.5mØ—LARGER ON REQUEST
- ◆ SKIRT VARIATION CAN ALSO BE OFFERED ROOF MOUNTED, THUS CREATING A LOW COST PENTHOUSE OPTION WITH MAXIMUM AESTHETIC APPEAL
- ◆ OPTION FOR ST ST MANUFACTURE WITHIN THE SMALLER Ø RANGE
- ◆ LOW LEVEL—TRANSPORTABLE, FULLY EQUIPPED (PLUG & GO) HORIZONTAL SILOS
- ◆ BESPOKE ARTICULATED DOCKSIDE INTERMEDIARY TANKER LOADING SILO—FOR USE IN TRANSFERRING SHIP HOLD PRODUCT DIRECT TO TANKERS WITHOUT BLOWING TO LARGER SILOS / STORAGE SHEDS, THUS SAVING SIGNIFICANT TIME
- ◆ SPECIALLY DESIGNED & MANUFACTURED FULLY WELDED UNITS—SAMPLE SHOWS 2No 4.675mØ ON SPECIAL SUPER LOW LOADERS

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LOADING BELLOWS

REMOTE FILTRATION



OUTLOADER®

- ◆ HEAVY DUTY, UK DESIGNED & BUILT.
- ◆ LOADING CAPACITY UP TO 250m³/Hr
- ◆ TWIN BELLOWS & FITTED WITH PRODUCT GUIDE / WEAR CHUTES FOR ADDED LONGEVITY
- ◆ BELLOWS & CHUTES IN VARIOUS MATERIALS TO SUIT PRODUCT / APPLICATION NEEDS
- ◆ SUITABLE FOR DISCHARGING POWDERS — GRANULATE INTO ROAD / RAIL & OPEN TRAILERS
- ◆ ROAD—RAIL UNITS CAN BE FITTED WITH AUTO CLOSER TO ELIMINATE RESIDUE DURING LIFTING
- ◆ CAN BE FITTED WITH VARIOUS LEVEL DEVICES FOR SAFER LOADING
- ◆ Sa2.5 BLASTED, PRIMED & POWDER COATED FOR DURABILITY. ST ST CONTACT PARTS ALSO AVAILABLE
- ◆ LARGE 1500 DUST EXTRACTION POINT FOR INTERCONNECTION TO REMOTE FILTER UNIT

INTEGRAL FILTRATION



OUTLOADER® PLUS

- ◆ DESIGNED WITH CONTINUITY OF COMPONENTS WITH SISTER *OUTLOADER*
- ◆ FITTED WITH INTEGRAL DUST FILTER & HIGH EFFICIENCY EXTRACTION FAN
- ◆ CLEANING OF DUST FILTER VIA OWN COMPRESSED AIR RECEIVER.
- ◆ PRE-MOUNTED & PROGRAMMED CONTROLLER FOR TAKING CARE OF THE CLEANING SEQUENCE.
- ◆ PLUG & PLAY FOR EASE OF INSTALLATION, JUST CONNECT POWER & AIR SUPPLY
- ◆ ALL VARIANTS & OPTIONS AS AVAILABLE IN THE *OUTLOADER* RANGE
- ◆ ALL UNITS FITTED WITH HIGH TORQUE, BRAKED, BEVEL HELICAL GEARBOXES
- ◆ ALL UNITS FITTED WITH PARK & SLACK ROPE SENSORS—THE LATER CAN BE UTILISED FOR FILLING CYCLE INTEGRATION
- ◆ ALL UNITS HAVE TRIPLE, ST ST, ROPES FOR ADDED SAFETY & SMOOTH LOWER / LIFTING OPERATION

LOADING BELLOWS

STOCKPILERS



OUTLOADER® SP

- ◆ DESIGNED FOR STOCKPILING OF POWDER OR GRANULATE PRODUCTS INTO WAREHOUSES ; STOCK BINS & SHIP HOLDS
- ◆ OVERSIZED DUST SKIRTS TO MAXIMISE DUST EXTRACTION DURING DISCHARGE
- ◆ AUTO RETRACT, VIA INTEGRAL LEVEL DEVICES, ENSURES EFFICIENCY OF STOCKPILING
- ◆ UP TO 250m³/Hr, LARGER UNITS ON REQUEST
- ◆ SP MODEL CAN BE FITTED TO EITHER *OUTLOADER* or *OUTLOADER PLUS* MODELS
- ◆ HARD WIRED OR WIRELESS REMOTE OPTIONS AVAILABLE
- ◆ HOST OF BELLOW MATERIALS AVAILABLE TO SUIT APPLICATION / PRODUCT CHARACTERISTICS

COMBINATION UNITS



OPTIONAL EXTRAS FOR RANGE

- ◆ CONTROL PANELS c/w SIEMENS LOGIC FOR FULL CONTROL & INTEGRATION INTO CLIENTS PROCESS
- ◆ COMBINATION TANKER / OPEN TRUCK VARIATION FOR LOADING OF EITHER FROM SINGLE UNIT
- ◆ REMOTE FILTERS FOR USE WITH *OUTLOADER'S*
- ◆ DIFFERENT FILTER MEDIAS FOR *OUTLOADER PLUS* UNITS TO SUIT PRODUCT CHARACTERISTICS
- ◆ WEAR CHUTES FROM ENGINEERED LOW FRICTION POLYMERS FOR THOSE *STICKY* PRODUCTS
- ◆ VARIOUS LEVEL DEVICES TO SUIT APPLICATION OR CLIENTS SPECIFIC BRAND, FOR PLANT STANDARDISATION
- ◆ ALL UNITS PACKED IN SPECIFIC OPEN CRATES FOR SAFE AND EASY TRANSPORTATION, WORLDWIDE & FOR EASY LIFTING INTO PLACE DURING INSTALLATION

MIXING & BLENDING

PLOUGHSHARE



PLOUGHSHARE

- ◆ SOURCED FROM MARKET LEADING MANUFACTURERS
- ◆ CAPACITIES FROM 2.6 > 26,000Lts
- ◆ DESIGNED FOR BATCH or CONTINUOUS OPERATIONS
- ◆ MATERIALS OF CONSTRUCTION—MILD STEEL ; WEAR RESISTANT STEELS ; St.St. 304/316 & 316Ti
- ◆ IDEAL FOR RAPID HOMOGENEOUS MIXING USING PLOUGHSHARE PROFILE TOOLS
- ◆ HEAVY WALLED, CYLINDRICAL, MAIN CHAMBER WITH MULTIPLE INLET DESIGNS AVAILABLE
- ◆ DISCHARGE VIA CYLINDRICAL OUTLET(S) WITH FLUSH FITTING VANE or FULL LENGTH BOMB DOORS OPTIONS FOR RAPID DISCHARGE
- ◆ INTERLOCKED INSPECTION DOOR(S) FOR EASE OF MAINTENANCE &/OR CLEAN DOWN
- ◆ HOST OF DRIVE DESIGNS & OPTIONS TO SUIT APPLICATION

RIBBON



RIBBON BLADE

- ◆ RIBBON BLADES FOR MORE *GENTLE* BLENDING OF PRODUCTS WITHOUT THE FLUIDISATION OF THE PRODUCT ASSOCIATED WITH PLOUGHSHARE MIXERS
- ◆ HEAVY WALLED 'U' PROFILE MAIN CHAMBER WITH FLAT LID.
- ◆ LIDS CAN BE BOLTED IN PLACE or INTERLOCKED *QUICK RELEASE* HINGED FOR EASE OF ACCESS
- ◆ ALL UNITS CAN BE FITTED WITH PRE-SELECTED HIGH SPEED CHOPPERS / HOMOGENISERS WHEN SMALL ADDITIONS, NORMALLY LIQUIDS, ARE ADDED TO ENSURE HOMOGENISED MIXES ARE ACHIEVED
- ◆ THESE RANGE OF MIXERS CAN BE FOUND IN INDUSTRIES SUCH AS ANIMAL FEED ; FOOD ; BUILDING ; CHEMICAL ; COSMETICS ; ECOLOGY AND CAN BE SUPPLIED AS TEST / LABORATORY SIZED UNITS
- ◆ FULL C&C FREE & CIP UNITS ALSO AVAILABLE FOR THE PHARMACEUTICAL INDUSTRIES, FULLY POLISHED TO VARIOUS STANDARDS DOWN TO RA0.3µm

MIXING & BLENDING

PADDLE



PADDLE BLADE

- ◆ SIMILAR CONSTRUCTION PARAMETERS AS THAT USED FOR THE *PLOUGHSHARE* RANGE OF UNITS.
- ◆ FITTED WITH PADDLE TYPE MIXING TOOLS IN PLACE OF PLOUGHSHARES THUS REDUCING FLUIDISATION OF THE PRODUCT DURING OPERATION
- ◆ ALL VARIABLES PREVIOUSLY MENTIONED WITHIN THE PLOUGH & RIBBON RANGE ARE AVAILABLE HERE
- ◆ GENERALLY SINGLE SHAFTED, OFTEN SOLID FOR LONGEVITY, BUT CAN BE SUPPLIED MULTI SHAFTED TO ORDER
- ◆ CAN BE FITTED WITH COOLING / HEATING JACKETS WHEN APPLICATION DEMANDS
- ◆ FULL C&C FREE AND CIP OPTIONS AVAILABLE THROUGHOUT THE RANGE

VARIATIONS



GRANULATORS & REACTORS

- ◆ WITH THE WEALTH OF EXPERIENCE WITHIN THE MIXING FIELD, VARIATIONS ON THE THEME, SUCH AS REACTORS & GRANULATOR UNITS ARE OFTEN REQUESTED
- ◆ ADDITIONAL *FITTINGS* SUCH AS PRE FITTED PNEUMATIC &/OR ELECTRICAL CONTROL PANELS ARE FREQUENTLY REQUESTED
- ◆ ROTATION & TEMPERATURE PROBES ARE ALSO COMMON ADDITIONS
- ◆ ROTOR GROUNDING, ESPECIALLY WHERE HIGH ELECTRO STATIC CHARGES CAN OCCUR.
- ◆ AIR SWEEP, VIA THE ROTOR SHAFT & MIXING TOOLS ALLOWS FOR EASY & CONTAINED CLEAN DOWN BETWEEN BATCH / PRODUCT CHANGES REDUCING POSSIBLE CONTAMINATION
- ◆ DOUBLE SKINNED MIXING CHAMBERS, INSULATED, FOR CONSISTENT TEMPERATURE CONTROL DURING PROCESS
- ◆ UNITS CAN BE DESIGNED & MANUFACTURED FOR APPLICATIONS INVOLVING PRESSURE or VACUUM
- ◆ UNITS CAN MANUFACTURED IN COMPLIANCE WITH ATEX & PED REGULATIONS

PNEUMATIC CONVEYING

BART SYSTEMS



MINI LINES

BART VESSELS ARE *VERSATILE, QUIET, EASY TO INSTALL AND ARE COMPACT IN DESIGN*. THEY ARE ABLE TO TRANSPORT FRAGILE POWDERS OR MATERIALS THAT TEND TO AGGLOMERATE. BART TRANSPORTERS ARE PARTICULARLY SUITABLE FOR HUMID LOCATIONS, AND IN THE FOOD, CHEMICAL OR PHARMACEUTICAL INDUSTRIAL SECTORS. BART LINE IS DEFINED BY IT'S APPLICATION FLEXIBILITY AND LOW CAPITAL & RUNNING COSTS.

BART TRANSPORTERS ARE SUITABLE FOR CONVEYING LINES UP TO 20m (55Ft), WITH A CAPACITY OF 1Te/Hr AND A LOW CONVEYING PRESSURE ≤ 2 BAR. CAN ALSO BE DESIGNED FOR HIGH TEMPERATURES APPLICATIONS, **UP TO 200° C**.

THE BART SIZE IS UNIQUE (CAPACITY 24 LITRES), WITH A LOADING INLET @ Ø150mm AND AN CONVEYING LINE AT EITHER 1.5", 2" OR 3"Ø.

CERTIFICATIONS  

BART-ONE SYSTEMS



MIDI LINES

BART-ONE VESSELS HAVE A CAPACITY ≤ 20 Te/Hr., DEPENDING ON THE LENGTH OF THE DESIRED CONVEYING LINE AND THE MATERIAL BEING MOVED. VESSELS COME IN A RANGE OF CAPACITIES FROM 80 > 900 LITRES. CAN ALSO BE DESIGNED FOR HIGH TEMPERATURES APPLICATIONS, **UP TO 200° C**.

BART-ONE 80

VESSEL SUITABLE FOR CONVEYING LINES UP TO 50m (140Ft) WITH A CAPACITY OF 80 LITRES AND A CONVEYING PRESSURE @ ≤ 4.5 BAR (TESTED @ 6 BAR ACCORDING THE PED - EUROPEAN PRESSURE EQUIPMENT DIRECTIVE). BART-ONE HAS A CAPACITY OF 2 Te/Hr, A LOADING INLET OF Ø200mm AND AN CONVEYING LINE AT EITHER 2", 3" OR 4"Ø. BART-ONE HAS BEEN DESIGNED FOR THE STANDARD METHOD OF TRANSPORTATION (OR HOLLOW TUBE). IT IS ALSO SUITABLE FOR MOVEMENT WITH FULL TUBE FOR FRAGILE MATERIALS, ABRASIVE AND MIXTURES AND FOR USE AS A METERING SYSTEM ON THE SCALE.

BART-ONE 150 - 300 - 600 - 900

THE BART-ONE TRANSPORTERS ARE AVAILABLE IN 4 DIFFERENT CAPACITIES: 150 ; 300 ; 600 OR 900 LITRES. ALL OF THEM HAVE A CAPACITY FROM 3 > 20 Te/Hr. & ARE EQUIPPED WITH AN ADVANCED CONTROL SYSTEM OF AIR INLET. THEY ARE SUITABLE FOR CONVEYING LINES UP TO 70m (200Ft) AND FOR CONVEYING PRESSURE @ ≤ 6 BAR AND HAVE A LOADING INLET OF Ø200 OR Ø250mm.

CERTIFICATIONS  

PNEUMATIC CONVEYING

TPA SYSTEMS



MAXI LINES

THE **TPA** LINE IS EQUIPPED WITH CUTTING EDGE TECHNOLOGY AND IS SUITABLE FOR CONVEYING LINES UP TO 500m+ LONG, &/OR WITH FRAGILE AND DIFFICULT PRODUCTS. CONVEYING CAPACITIES GREATER THAN 100Te/Hr. OFTEN ACHIEVED. THE TPA VESSELS ARE DESIGNED TO GUARANTEE THE INTEGRITY OF THE GRANULAR OR POWDERED MATERIALS DURING CONVEYING WHILST MAINTAINING A HIGH LEVEL OF SYSTEM EFFICIENCY.

THE TPA TRANSPORTERS ARE AVAILABLE IN THREE TYPES, DEPENDING ON THE CHOSEN SYSTEM OF TRANSPORT:

STANDARD

THE CONVEYING LINE IS EMPTIED — PURGED AFTER EACH CYCLE.

FULL PIPELINE

THE CONVEYING HAPPENS WITH A FULL PIPE. THIS PERMITS AIR AND ENERGY SAVING COMPARED WITH THE CONVENTIONAL METHOD. THE TPA FULL PIPELINE VESSELS ARE USED TO MOVE FRAGILE AND ABRASIVE MATERIALS.

FULL PIPELINE CONTINUOUS

THE USE OF TWO TPA FULL PIPELINE TRANSPORTERS INTERCONNECTED TO A COMMON CONVEYING LINE RENDERS THE POSSIBILITY OF A CONSTANT CONVEYING OF THE MATERIAL INSIDE OF THE PIPE, FURTHER REDUCING THE SYSTEM'S TOTAL CYCLE TIME—INCREASING PROCESS CAPACITY.

TESTING FACILITIES



RESEARCH & DEVELOPMENT

CLIENTS CAN PRE-EXAMINE CONVEYING SUITABILITY OF THEIR PRODUCT, WHERE WE DON'T ALREADY HAVE EXPERIENCE IN THAT PRODUCT, BY UTILISING THE FULLY EQUIPPED TEST / PILOT PLANT.

THE PILOT PNEUMATIC PLANT IS ABLE TO PERFORM TESTS ON CUSTOMERS' PRODUCTS, WHETHER POWDERED OR GRANULAR AND VERIFY TRANSPORT FEATURES PRIOR TO FABRICATION. THE LABORATORY HAS A MATERIALS DATABASE COVERING MORE THAN 2000 SAMPLES WITH THE CORRESPONDING CHARACTERISTICS CAREFULLY DETERMINED, SUCH AS:

- ◆ AIR CONSUMPTION
- ◆ PRESSURE
- ◆ SPEED
- ◆ CARRYING CAPACITY (MAXIMUM VOLUME)
- ◆ YIELD COEFFICIENT
- ◆ FRAGILITY OF THE MATERIALS

AND FURTHER INFORMATION ON REQUEST. THE MINIMUM AMOUNT OF MATERIAL NEEDED FOR EACH TEST IS 0.6m³.

TESTS ENABLE OUR ENGINEERS TO:

- ◆ HIGHLIGHT IMPORTANT INFORMATION FOR PLANT DESIGN.
- ◆ OPTIMISE TIMES AND PROCEDURES DURING THE SYSTEM START-UP.
- ◆ EVALUATE POSSIBLE NEW SOLUTIONS.
- ◆ SHOW THE SYSTEM'S OPERATION DURING THE CLIENTS FACTORY VISIT.

OTHER COMPONENTS

BUTTERFLY VALVES



ECONOMY & PRESSURE TYPES

- ♦ ECO RANGE MANUFACTURED FROM CAST ALUMINIUM WITH DOUBLE FLANGE PROFILE
- ♦ VANES FROM THICK GAUGE ALUMINIUM or STAINLESS STEEL
- ♦ SEALS FROM STD EPDM, HIGH TEMPERATURE or FULL WRAP AROUND FOOD QUALITY
- ♦ SHAFTS MOUNTED ON DRY LINE BEARING SHELLS FOR MAINTENANCE FREE OPERATION, SPLINED or SQUARE SHAFTS
- ♦ BOLT ON SPIGOTS FOR FLANGE CONVERSION TO BEADED EDGE, FOR EASE OF AFFIXING A FLEXIBLE SLEEVE
- ♦ HEAVY DUTY, CAST IRON, UNITS FOR LINE PRESSURES UP TO 20Bar
- ♦ WAFER & LUG TYPE PROFILES
- ♦ MANUAL, ELECTRO-PNEUMATIC or ELECTRIC ACTUATION
- ♦ CAN BE SUPPLIED  ATEX CERTIFIED

SLIDE VALVES

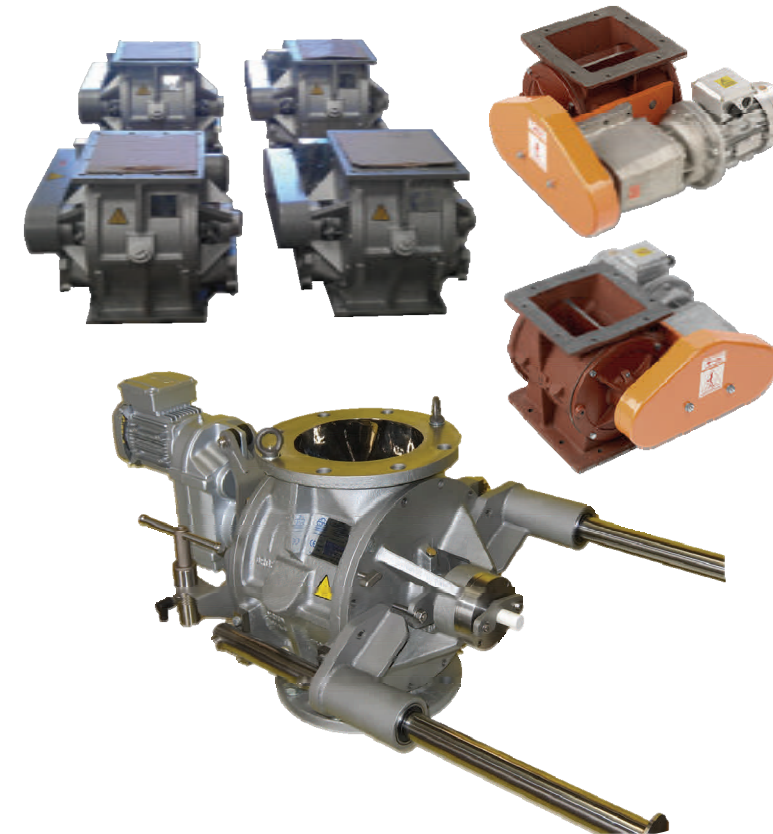


ECONOMY & HEAVY DUTY TYPES

- ♦ ECO RANGE FABRICATED FROM MILD STEEL or ST ST WITH SQUARE & RECTANGULAR PROFILE
- ♦ VANES FROM THICK GAUGE STEEL or STAINLESS STEEL
- ♦ SEALS FROM STD EPDM, HIGH TEMPERATURE or FULL FOOD QUALITY
- ♦ MANUAL HAND-WHEEL ; CHAIN-WHEEL , ELECTRO-PNEUMATIC or ELECTRIC ACTUATION
- ♦ EXTRA HEAVY DUTY, CAST IRON, UNITS FOR ARDUOUS APPLICATIONS
- ♦ CAN BE SUPPLIED  ATEX CERTIFIED
- ♦ EXTRA HEAVY DUTY, MACHINED EDGE, SLIDE PLATE
- ♦ EXTERNALLY ADJUSTABLE SLIDE PLATE SEALING / PACKING GLAND ASSEMBLY
- ♦ SQUARE PROFILE, UP TO 400mm
- ♦ MANUAL HAND-WHEEL OR ELECTRO PNEUMATIC ACTUATION

OTHER COMPONENTS

ROTARY VALVES



ECONOMY & HEAVY DUTY TYPES

- ♦ ECO RANGE MANUFACTURED FROM CAST IRON WITH SQUARE ; ROUND & RECTANGULAR PROFILE
- ♦ DROP THROUGH OR DIRECT BLOW THROUGH
- ♦ MULTIPLE VANE OPTIONS, MANUFACTURED FROM VARIOUS MATERIALS
- ♦ MEDIUM > LIGHT DUTY APPLICATIONS, SUCH AS DUST FILTER APPLICATIONS
- ♦ HEAVY DUTY, CAST IRON, UNITS FOR MEDIUM > ARDUOUS APPLICATIONS WITH SQUARE PROFILE
- ♦ ARRAY OF PRECISION VANE DESIGNS, MATERIAL OPTIONS TO CATER FOR ALMOST ALL APPLICATIONS
- ♦ EXTERNAL BEARINGS GROUPS WITH ADJUSTABLE SEALING / PACKING GLAND ASSEMBLY
- ♦ FULL 'CIP' OPTIONS, FOR THOSE HYGIENIC APPLICATIONS
- ♦ HEAVY DUTY UNITS CAN BE SUPPLIED  ATEX CERTIFIED

SPECIAL VALVES



SAMPLE OF SOME VARIATIONS

- ♦ REVOLUTIONARY OPTION TO TRADITIONAL ROTARY VALVE—IMPELLOR VALVE, A LOW PROFILE LIGHTWEIGHT MULTI-VANE BUTTERFLY VALVE. ST ST SEAT & VANE ENSURES MOST APPLICATIONS CAN BE MET
- ♦ IN-LINE LUMP CRUSHER, IDEAL FOR PROCESS LINES WHERE PRODUCT HAS TENDENCY TO AGGLOMERATE WHICH IS BROKEN BACK DOWN TO POWDER WHEN PASSING THROUGH THIS VALVE. HOST OF MATERIAL OPTIONS & THROUGHPUTS
- ♦ BLOW LINE DIVERTER VALVE—IDEAL FOR PNEUMATIC CONVEYING LINES WITH MULTIPLE DESTINATIONS. GENERALLY SUPPLIED AS TWIN ROUTE OUTLETS, ALTHOUGH OTHER VARIANTS ARE AVAILABLE
- ♦ HEAVY DUTY *FLIP/FLOP* VALVE, ANOTHER ALTERNATIVE TO TRADITIONAL ROTARY VALVES AS MAINTAINS PROCESS PRESSURE DURING OPERATION

OTHER COMPONENTS

LEVEL PROBES—ROTARY PADDLE



ECONOMY & PROCESS LINE

- ◆ FULL RANGE OF ROTARY PADDLE TYPE LEVEL INDICATORS, ECONOMY & HIGH PRECISION
- ◆ ECONOMY RANGE, SUPPLIED FOR 25+YRS, OFFERS UNIQUE PRICE v PERFORMANCE RATIO, MAXIMISING ROI
- ◆ CAST ALUMINIUM HOUSINGS WITH ARRAY OF FITTING STYLES & SIZES
- ◆ ARRAY OF PADDLE PROFILES & MATERIALS TO SUIT ALMOST EVERY APPLICATION
- ◆  ATEX CERTIFIED AS STANDARD
- ◆ PRECISION UNITS FOR THE MORE SPECIALIST APPLICATION, INCL. FOOD & PHARMACEUTICAL SECTORS
- ◆ SPOT VOLTAGE OR MULTI VOLTAGE UNITS AVAILABLE TO REDUCE CLIENTS STOCK INVENTORY, HIGH TEMP. UPTO 1100°C AVAILABLE
- ◆ ADJ. SENSITIVITY, FOR EASE OF MATCHING TO PRODUCT / APPLICATION CHARACTERISTICS

LEVEL PROBES—CAPACITANCE



ECONOMY & PROCESS LINE

- ◆ FULL RANGE OF NON MECHANICAL CAPACITANCE TYPE LEVEL INDICATORS, ECONOMY & HIGH PRECISION
- ◆ ECONOMY RANGE, SUPPLIED FOR 25+YRS, OFFERS UNIQUE PRICE v FEATURES, MAXIMISING ROI
- ◆ CASING IN LATIOMH 62-03 PD01 G/20, PROTECTION IP65. WITH PROBE IN LATISHIELD 66-13A G/30
- ◆ AVAILABLE POWER SUPPLIES: V.110/220 A.C. ; V.24/48 A.C. 50/60 HZ. & V.24 D.C.
- ◆ MAXIMUM OPERATIONAL PRESSURE: +1.1BAR. & AMBIENT TEMPERATURE RANGE: -20 > +70°C.
- ◆ PRECISION UNITS FOR THE MORE SPECIALIST APPLICATION, INCL. FOOD & PHARMACEUTICAL SECTORS
- ◆ CASING IN PA6 OR ALUMINIUM
- ◆  ATEX CERTIFIED or FOOD GRADE MATERIALS IN ACCORDANCE WITH 1935/2004/EG
- ◆ VARIOUS VOLTAGES FROM SPDT ; DPDT or PNP (3 WIRE) ALL AVAILABLE FOR CLIENTS PLANT STANDARDISATION
- ◆ MAXIMUM OPERATIONAL PRESSURE: -1 > +16BAR & PROCESS TEMPERATURE RANGE: -40 > +180°C.

OTHER COMPONENTS

LEVEL PROBES—VIBRATORY



ECONOMY & PROCESS LINES

- ◆ PRECISION UNITS @ ECONOMY COSTING'S FOR A WIDE RANGE OF APPLICATIONS, INCLUDING FOOD & PHARMACEUTICAL SECTORS
- ◆ CASING IN ALUMINIUM IP66 AS STANDARD WITH OSCILLATOR (TUNING FORK) IN 316 ST ST
- ◆  ATEX CERTIFIED or FOOD GRADE MATERIALS IN ACCORDANCE WITH 1935/2004/EG
- ◆ VARIOUS VOLTAGES FROM DPDT or PNP (3 WIRE) ALL AVAILABLE FOR CLIENTS PLANT STANDARDISATION
- ◆ MAXIMUM OPERATIONAL PRESSURE: -1 > +16BAR & PROCESS TEMPERATURE RANGE: -40 > +150°C.
- ◆ TWIN, SELECTIVE, SENSITIVITY LEVELS @ 30g/l (1.9lb/ft³) or 150g/l (9.5lb/ft³)

STOCK CONTROL—SEMI CONTINUOUS



PROCESS LINE INTEGRATION

- ◆ THESE MULTIFUNCTIONAL, MICROPROCESSOR CONTROLLED, SEMI CONTINUOUS LEVEL DEVICES ARE IDEAL FOR CLIENTS REQUIRING A VERY PRECISE AND ONGOING ANALYSIS OF THEIR STOCK INVENTORY
- ◆ EASY INSTALLATION & SET-UP AND COME WITH A VARIETY OF MOUNTING OPTIONS
- ◆ CAN BE UTILISED IN VAST ARRAY OF APPLICATIONS, REGARDLESS OF MATERIAL PROPERTIES, SUCH AS CONDUCTIVITY ; DUST ; DI-ELECTRICITY ETC...
- ◆ OUTPUTS CAN BE EITHER VIA 0/4 — 20mA or COMMUNICATION VIA MODBUS or PROFIBUS DP FOR TOTAL PROCESS INTEGRATION
- ◆ ROPE VERSION ≤ 30m & TAPE VERSION ≤ 50m WITH TYPICAL SERVICE LIFE'S OF ≥200,000 & 500,000 MEASURING CYCLES RESPECTIVELY
- ◆  ATEX CERTIFIED or FOOD GRADE MATERIALS IN ACCORDANCE WITH 1935/2004/EG
- ◆ MAXIMUM OPERATIONAL PRESSURE: +1.7BAR & PROCESS TEMPERATURE RANGE: -40 > +250°C.
- ◆ LOW STARTING SENSITIVITY @ 20g/l (1.2lb/ft³) DEPENDANT ON SENSOR WEIGHT

OTHER COMPONENTS

SILO PROTECTION—BASIC

ECO SPS

TO FULFILL COMPLIANCE WITH HSE & EPA REGULATIONS, SN ENGINEERING OFFER A WHOLE RANGE OF SILO PROTECTION SYSTEMS (SPS). DESIGNED TO MONITOR ACTIVITY DURING THE PNEUMATIC FILLING PHASE OF ANY SILO THESE UNITS, IN CONJUNCTION WITH IN-HOUSE SUPPLIED SHUT-OFF VALVES ; HIGH LEVEL INDICATORS & HIGH PRESSURE SENSORS, ENSURES THAT THE CLIENTS SILO IS NOT ONLY PROTECTED FROM DAMAGE BUT ENSURES ENVIRONMENTAL COMPLIANCE IS ACHIEVED. FROM SINGLE SILO, BASIC PANELS TO THE MORE SOPHISTICATED MULTI SILO UNITS COMPLETE WITH CONSTANT SILO PRESSURE MONITORING ENSURE ALL CLIENT NEEDS ARE CATERED FOR. THE USE OF MINI LOGIC TO MINI PLC ENSURES FLEXIBILITY FOR ADDITIONAL DEVICES AS REQUIRED & EASE OF DIAGNOSTIC RETRIEVAL.

BASIC UNITS ENSURE CLIENTS COMPLIANCE BY MONITORING A HIGH LEVEL (PRODUCT) AND HIGH PRESSURE (AIR) SIMULTANEOUSLY AND ACTIVATING A SHUT OF VALVE ON THE FILL PIPE SHOULD A SIGNAL FROM EITHER DEVICE BE RECEIVED.



SILO PROTECTION—MONITORING

SPS & SYSTEM MONITORING

- ◆ BASED AROUND SPS CONTROLLER THESE UNITS ARE ENHANCED TO GIVE THE CLIENT A VISUAL / AUDIBLE COMPLETE SILO MONITORING SYSTEM
- ◆ UNIT MONITORS TRADITION HIGH LEVEL & HIGH PRESSURE DURING THE SILO FILLING PHASE, IN ADDITION IT ENSURES ALL OTHER EQUIPMENT FITTED TO THE SILO IS OPERATING CORRECTLY TO ENSURE COMPLETE SILO INTEGRITY
- ◆ ADDITION MONITORING OF, ALTHOUGH NOT EXHAUSTIVE, COVERS SUCH ITEMS AS:
 - ⇒ COMPRESSOR RUNNING
 - ⇒ COMPRESSED AIR TO FILTER @ PRESSURE
 - ⇒ FILTER FAN RUNNING (WHEN APPLICABLE)
 - ⇒ FILTER CONTROLLER HEALTHY
 - ⇒ HIGH ; MID & LOW LEVEL INDICATOR STATUS
 - ⇒ PRV ACTIVATION INDICATOR
 - ⇒ SILO DISCHARGE AERATION OPERATIONAL
 - ⇒ FILL PIPE VALVE STATUS
 - ⇒ SYSTEM SELF TEST FACILITY



OTHER COMPONENTS

SILO PROTECTION—FULLY INTEGRATED

SPS ULTIMATE

- ◆ AS THE NAME SUGGESTS, THE ULTIMATE IN SPS
- ◆ BASED AROUND INDUSTRY LEADING SIEMENS HARDWARE, WITH INDIVIDUAL IN-HOUSE PROGRAMMING, THESE ULTIMATE SPS's ARE FAST ACHIEVING *PREFERRED* STATUS THROUGHOUT LEADING ORGANISATION'S THAT ARE ENSURING THEIR PLANTS COMPLY WITH CURRENT HSE / EPA LEGISLATION.
- ◆ A FULLY INTEGRATED DISPLAY PANEL ALLOWS FOR EASY VISUAL INTERFACE, IN THIS CASE, SILO PRESSURE DURING FILLING AND FOR VARIOUS OPERATOR INTERROGATION.
- ◆ ALL OUR SPS RANGE ARE DESIGNED & BUILT IN-HOUSE @ GLOUCESTER, AND UTILISE THE BEST AVAILABLE COMPONENTS FOR ADDED PEACE OF MIND.
- ◆ ENCLOSURES ARE GENEROUSLY SIZED, FOR EASE OF CONNECTIVITY & EASY VISUAL SCANNING, AND CAN BE SUPPLIED IN VARIOUS MATERIALS, FOR ADDED LONGEVITY.  ATEX ON REQUEST.



PROCESS CONTROL SYSTEMS

PROCESS CONTROL EXPERTISE

- ◆ WITH OUR WEALTH OF KNOWLEDGE IN DRY BULK MATERIALS HANDLING PROCESS CONTROL & FLOW CHARACTERISTICS WE ARE OFTEN CALLED UPON TO DESIGN & MANUFACTURE, ALONGSIDE OUR MECHANICAL EQUIPMENT SUPPLY, FULLY INTEGRATED PROCESS CONTROL SYSTEMS.
- ◆ HAVING 1ST ANALYSED THE WHOLE CONTROL & FLOW PROCESS IN CONJUNCTION WITH THE PRODUCTION OF A P&ID SCHEMATIC, OUR TECHNICIANS THEN SET ABOUT WRITING A FULL & DETAILED CONTROL PHILOSOPHY FOR CLIENT APPROVAL.
- ◆ ONCE THE P&ID + FDS HAS BEEN APPROVED OUR PROGRAMMERS THEN SET ABOUT WRITING THE PROGRAMS, NORMALLY ON SIEMENS or AB SOFTWARE, THEN A FULL VISUAL *MOCK-UP* IS PRESENTED TO THE CLIENT COVERING ALL KNOWN *WHAT-IF* SCENARIOS. THIS ENSURES THE CLIENT'S PEACE OF MIND THAT ONCE INSTALLED ON SITE THEN EVERYTHING WILL FUNCTION CORRECTLY FROM THE OFFSET.



OTHER COMPONENTS

LOW FRICTION & ANTI WEAR LININGS

TIVAR® 1000

PRODUCT OVERVIEW

- ◆ MEETS FDA AND USDA GUIDELINES; 3-A DAIRY APPROVED (NATURAL)
- ◆ REDUCES NOISE
- ◆ SELF-LUBRICATING
- ◆ CHEMICAL-, CORROSION- AND WEAR-RESISTANT
- ◆ NO MOISTURE ABSORPTION
- ◆ NON-TOXIC, LOW-FRICTION SURFACE, MEETS ASTM-D-4020-05 OF 3.1 TO 6.2-MILLION MOLECULAR WEIGHT

TIVAR® 1000 SETS THE STANDARD FOR ENGINEERED POLYMERS WITH A UNIQUE COMBINATION OF WEAR AND CORROSION RESISTANCE, LOW FRICTION SURFACE AND IMPACT STRENGTH.

TIVAR® 1000 IS RESISTANT TO CHEMICAL ATTACK AND MOISTURE ABSORPTION, AND RETAINS KEY PHYSICAL PROPERTIES TO -30° C.



LOW FRICTION & ANTI WEAR LININGS

TIVAR® 1000ESD

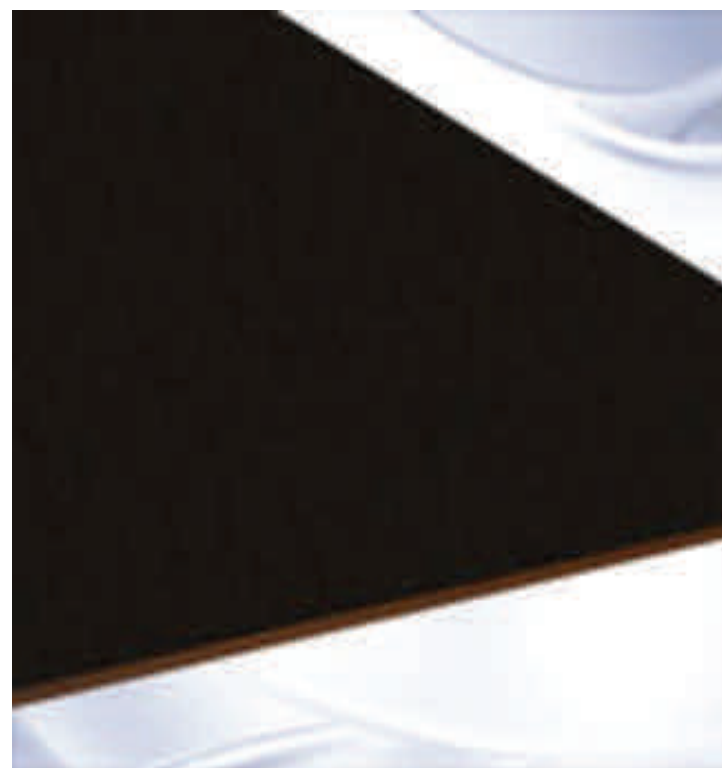
PRODUCT OVERVIEW

- ◆ PROTECTS AGAINST ELECTRICAL CHARGE BUILD-UP
- ◆ REDUCES NOISE
- ◆ SELF-LUBRICATING
- ◆ CORROSION-RESISTANT & NO MOISTURE ABSORPTION

IF STATIC ELECTRICITY POSES A SIGNIFICANT PROBLEM IN YOUR MANUFACTURING ENVIRONMENT, TAKE ACTION BY CHOOSING TIVAR® ESD OR TIVAR® EC.

WITH A SURFACE RESISTIVITY RANGE OF 10^{-5} TO 10^{-9} (OHMS/CM²) TIVAR® ESD HANDLES TOUGH CONDITIONS WHERE DUST AND STATIC ELECTRICITY CAN CAUSE PROBLEMS.

TIVAR® ESD IS AN IDEAL MATERIAL TO USE WHEN POTENTIALLY VOLATILE CONDITIONS EXIST, SUCH AS THOSE IN GRAIN ELEVATORS AND MUNITIONS PLANTS, EFFECTIVELY SAFEGUARDING AGAINST STATIC DISCHARGES. IN ADDITION, IT RESISTS HEAT AND PROTECTS ROBOTICS AND OTHER PRODUCTS THAT ARE SENSITIVE TO DUST ACCUMULATION AND ELECTRICAL CHARGE BUILD-UP.



OTHER COMPONENTS

LOW FRICTION & ANTI WEAR LININGS

TIVAR® 88

PRODUCT OVERVIEW

- ◆ PROMOTES RELIABLE, STEADY BULK MATERIAL FLOW
- ◆ ABRASION, CHEMICAL AND CORROSION-RESISTANT
- ◆ LOW COEFFICIENT OF FRICTION
- ◆ NO MOISTURE ABSORPTION
- ◆ REDUCES OR ELIMINATES ARCHING, RAT HOLING AND ERRATIC FLOW

RECOGNIZED WORLDWIDE AS THE PREMIUM LINING MATERIAL FOR BULK MATERIAL HANDLING, **TIVAR® 88** IS NOTED FOR ITS PERFORMANCE IN PROMOTING BULK SOLIDS FLOW OF COHESIVE OR NON-FREE FLOWING MATERIALS DUE TO ITS LOW SURFACE FRICTION.

TIVAR® 88 LINERS ARE THE PERFECT SOLUTION WHEN YOU NEED TO REDUCE OR ELIMINATE ARCHING, RAT HOLING AND ERRATIC MATERIAL FLOW CHALLENGES IN BINS, BUNKERS, HOPPERS AND CHUTES, RAILCARS, ETC. ALSO AVAILABLE IN 'ESD', ELECTRO STATIC DISSIPATIVE



INDUSTRIES & APPLICATIONS

JUST SOME EXAMPLES

INDUSTRIES:

- | | | |
|---------------------------------------|-----------|-----------|
| • POWER | UTILITIES | STEEL |
| CEMENT | CHEMICAL | GRAIN |
| MINERALS | PLASTICS | FOOD |
| ANIMAL FEEDS | BIOMASS | RECYCLING |
| PHARMACEUTICALS AND MUCH, MUCH MORE . | | |

APPLICATIONS

- | | |
|-------------------------------|--------------------|
| • BELT SCRAPERS | BUNKER LINERS |
| CHAIN CONVEYOR FLIGHTS | CHUTE LINERS |
| • CONVEYOR SKIRTING | CYCLONES |
| DRAW CONVEYOR LINERS | HOPPER LINERS |
| • DRAGLINE BUCKETS | RAILCAR LINERS |
| OFF-ROAD TRUCK BEDS | PUG MILL PADDLES |
| • DUST HOPPER LINERS | RECLAIMER BUCKETS |
| FEL BUCKET LINERS | SILO LINERS |
| • SCREW CONVEYOR LINERS | SLIDER BEDS |
| SELF-UNLOADING SHIPS | STORAGE BIN LINERS |
| • SURGE BIN LINERS | BIN DISCHARGERS |
| TRANSFER CHUTE LINERS | UNDER CHAIN GUIDES |
| • VIBRATORY FEEDER LINERS | PIPE BENDS |
| AND MUCH, MUCH MORE | |

