





# A leading producer of Refrigeration Compressors, Evaporators, Controls and the largest manufacturer of Valves in India.

**SUPERFREEZE** is a leader in the industry & for more than three decades has contributed in areas like: Food Processing, Milk Dairies, Breweries, Sea Food industries, Pharmaceutical, Chemical plants, Power, Bulk Drugs, Fruits and Vegetables Cold Storage, Petrochemical, Fertilizers & Cryogenic industry.

The first in India to be ISO 9001: 2000 certified in this niche segment, SUPERFREEZE is supported by a team of 200 highly skilled professionals committed to delivering products & services to the highest standards.



 $^{\mbox{\footnotesize GG}}$  We make an extra effort to deliver the finest customer experience and people know us for that. We believe in genuine quality and genuine promises... 99

Mr. Sanjeev Maini (Chairman)





# SUPERFREEZE's unique position as a leader can be attributed to its complete independence in terms of resources.

With two well equipped manufacturing units, independent un-interrupted power back up, in house foundries, machine shops and R&D labs the company surges from strength to strength with every product it manufactures.

SUPERFREEZE boasts of two advanced manufacturing facilities at Bahadurgarh and Nalagarh that are spread over a combined covered area of approx 100000 sq ft, and that house some of the finest machines.

The work force, committed and with evolved skill sets, tested over the years is also a major contributing factor to the quality of service & delivery at SUPERFREEZE.



















### Superfreeze maintains a high quality standard

throughout its manufacturing process to give its products the complete reliability edge. Every product manufactured, bears the unique stamp of precision, quality and functionality that Superfreeze is known for. An ISO certified company, its revolutionary contributions have been acknowledged world wide through numerous awards.







## Superfreeze is driven by an urge to constantly improve, develop and innovate.

This culture at Superfreeze has led to the birth of revolutionary designs and products that are today positively impacting companies across the globe.

The Patented Stem Packing and Back Seat design, exclusive Superfreeze features are examples of this inspired approach. These have won Superfreeze accolades across the globe.













## A socially conscious and environmentally aware company

it is committed to creating the ideal conditions for productivity. **SUPERFREEZE** walks the extra mile and provides residence facility for its work force within the premises. And as a strong believer in 'giving back to the society' **SUPERFREEZE** commits itself to a variety of programs:

**Scholarship Programs:** Empowering children through scholarship that covers every expense, creating conditions for a better tomorrow.

**NGO Support:** Support to organizations like LCRA and others that empower and work for the upliftment of the underprivileged.

**Community Healthcare Services:** Working closely with a team of dedicated doctors, **SUPERFREEZE** also sponsors community health drives to battle critical diseases like Cancer, Tuberculosis, HIV and Leprosy.





SUPERFREEZE State-of-the-art Shut-off valves are designed specifically for use in industrial ammonia and large commercial halocarbon refrigeration systems.

#### **Electronic Liquid Level Controller**

Type: 38SLC

SUPERFREEZE liquid level controllers, type 38SLC are used to regulate the liquid level in a vessel or a flooded coil. The level controller consists of a float chamber and an electronic controller. A level indicator module is mounted on the controller consisting of LED's operating in bar graph mode. The indicator displays the rising and falling of liquid level inside the float chamber.

#### **Specification**

Refrigerants: R-717 (Ammonia), R-12, R-22, R-502 etc. Differential: Adjustable between 10 and 50 mm

Media temp. Range: -45 °C to +55 °C

Max. operating pressure: 21 bar for float housing

**Enclosure:** 

For float housing: IP65 For controller housing: IP55





#### Float Switch

Type: 38SFS

SUPERFREEZE Float switch, type 38SFS, is an electro mechanical float switch designed to provide a reliable, electro- mechanical response to liquid level changes. The design incorporates a mechanical float which will operate in the refrigerant. When the set level is reached an electrical volt free micro switch will be activated.

#### **Specification**

Refrigerants: R-717 (Ammonia), R-12, R-22, R-502 etc

Safe Operating Pressure: 406 psig (28 bar) Operating Temperature Range: -50 °C to +65 °C

Liquid level differential: Variable between 12.5mm to 50mm (1/2" to 2") in 12.5mm (1/2") increments

Normally Open (NO) and Normally Closed (NC) function

**Enclosure: IP65** 



#### **Solenoid Valves**

Type: SFA

The primary purpose of an electrically operated Solenoid valve is to control automatically the flow of fluids, liquids and gasses. SUPERFREEZE SFA - Series Solenoid valves may be applied on a wide variety of applications. These flanged, industrial refrigeration duty solenoid valves are very simple and compact but rugged in construction. These are direct acting or pilot operated solenoid valves for liquid suction and hot gas lines with ammonia or fluorinated refrigerant.



#### **Specification**

Temperature of medium: -40 °C to +80 °C with 18 Watt coil

Safe Working Pressure: 300 psig (21 bar)

Refrigerants: Suitable for all common refrigerants including R-717 (Ammonia), R-12, R-22, R-134a, R-502

Coil: Same for all Superfreeze SFA-Series Solenoid Valves



#### **Regulating Valves**

Type: SPR1 & SPR3

Port Size: 5-32mm, 40mm, 50mm & 65mm

**Connections:** Flanged

SUPERFREEZE regulating valves types SPR1 & SPR3 are specially designed for capacity regulation in refrigeration, freezing and air conditioning plant for ammonia and fluorinated refrigeration.

#### **Specification**

Refrigerants: R-717 (Ammonia), R-12, R-22, R-502 etc

Media temperature range: -50 °C to +120 °C

Max. operating pressure: 28 bar Max. test pressure: 42 bar Pilot: • Solenoid Pilot Valve

• Pressure Controlled Pilot Valve

• Temperature Controlled Pilot Valve

• Differential Pressure Controlled Pilot Valve





#### Stop Valves

Type: SBW

Port Size: 6mm thru 10mm Globe and Angle type

Connections: Butt weld

SUPERFREEZE stop valves are simple in construction and rugged for industrial use. These valves are equipped with union nut for ease of replacement and provided with weldable nipple.





#### **Guage Valves**

Type: SPGV

Port Size: 8mm, 10mm & 12mm weldable

SUPERFREEZE Gauge valves are simple in construction and rugged for industrial use. These valves are equipped with union nut for ease of replacement and provided with weldable nipple.





#### **Digital Temperature Indicator**

Type: SFT21

**Specification** 

Dial Size: 4" with 1" display Input Sensor: RTD PT100 Range: -50 °C to +50 °C -60 °F to +95 °F Probe Wire Length: 5mtr

Supply: 230V AC





#### **Weld -in- Line Stop Valves**

Type: SSW

Port Size: 1/2" thru 2" (15mm - 50mm) for Straight and Angle form

**Connections:** Socket Weld

SUPERFREEZE SSW - Series well designed and constructed low pressure drop refrigerant shut-off valves are welded directly to steel piping, thereby eliminating potential leaky flanges or threaded

joints and simplifying installations.

#### **Specification**

Refrigerants: Suitable for all common refrigerants including R-717 (Ammonia), R-134a, neutral,

gaseous and liquid media

Temperature Range: -46 °C to +116 °C (-50 °F to +240 °F)

Temperature Below: -60 °F at lower pressure

Safe Working Pressure: 568 psig (40 bar) PS-40 Rated

Leak Proof Sealing: Non Metallic special polymer seal and taper seat provides leak proof sealing.

#### **Back Seating & Gland Packing:**

The heart of SUPERFREEZE shut-off-valve is the Patented Stem Packing & Backseat Design. This Patented design is used exclusively on SUPERFREEZE valves & virtually eliminates stem leakage.

Light Weight & Compact : Ease of installation

Stem: Stainless Steel

Flow: Can accept flow in both direction

Available in both wheel and vented cap option







#### Weld -in- Line Stop Valves

Type: SBW

Port Size: 1/2" thru 12" (15mm - 300mm) for globe and angle form

**Connections:** Butt Weld

**SUPERFREEZE** SBW - Series well designed and constructed low pressure drop refrigerant shut-off valves are butt-welded directly to steel piping, thereby eliminating potential leaky flanges or threaded joints and simplifying installations.

#### **Specification**

Refrigerants: Suitable for all common refrigerants including R-717 (Ammonia), R-134a,

neutral, gaseous and liquid media

Temperature Range: -46 °C to +116 °C (-50 °F to +240 °F)

Temperature Below: -60 °F at lower pressure

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Flow: Can accept flow in both direction

Available in both wheel and vented cap option











#### **Stop Valves**

Type: FSV (Flanged connections)

Port Size: 1/2" thru 8" (15mm - 200mm) for flanged connections.

Type: SSV (Screwed connections)

Port Size: 1/4" thru 2" (6mm – 50mm) for screwed connections.

The advanced design and material of SUPERFREEZE FSV - Series stop valves make them a far superior product, especially in regards to non leakage of seat, bonnets and back seating.

All valves are available in Straight and Angle form.





#### **Specification**

Refrigerants: R-717 (Ammonia), R-12, R-22 & other common refrigerants.

Temperature Range: -46 °C to +116 °C (-50 °F to 240 °F)

Safe Working Pressure: 365 psig (21 bar)

Leak Proof Sealing: Non Metallic special polymer seal and taper seat provides leak proof sealing.

**Back Seating & Gland Packing:** 

The heart of SUPERFREEZE shut-off-valve is the Patented Stem Packing & Backseat Design. This Patented design is used exclusively on SUPERFREEZE valves & virtually eliminates stem leakage.



#### **Check Valves**

Type: PSCK1

Port Size: 11/4" thru 6" (32mm - 150mm)

**Connections:** Flanged

SUPERFREEZE PSCK - Series piston type, gravity closing, heavy duty check valves are suitable for ammonia R-12, R-22 and other refrigerants. All PSCK check valves are flanged and have a provision for manual operation with the help of manual opening stem. The PSCK valves have metal to metal seats.

The PSCK piston-type check valves prevents backward flow of refrigerant in liquid, discharge, and suction and hot gas lines. They are recommended for compressor discharge lines and also for liquid line & suction lines with the temperature as low as -30 °C (-25 °F)



#### Stop Cum Check Valves

Type: WSCK2

Port Size: 1/2" thru 6" (15mm - 150mm) for globe and angle form

Connections: Butt Weld: 1/2" thru 6" (15mm - 150mm)

Socket Weld: 1/2" thru 2" (15mm - 50mm)

SUPERFREEZE well-designed and constructed low pressure drop refrigerant stop cum check valves are butt-weldable directly to steel piping, thereby eliminating potential leaky flanges or threaded joints, and simplifying installation. The important features of these valves are non leak packing and back seat design. In valve open condition, if inlet pressure drops below outlet pressure, the valve acts as check valve and do not allow reverse flow of liquid.



Refrigerants: Suitable for all common refrigerants including R-717 (Ammonia), R-134a, R-404,

neutral, gaseous and liquid media

Temperature Range: -46  $^{\circ}$ C to +116  $^{\circ}$ C (-50  $^{\circ}$ F to +240  $^{\circ}$ F)

Temperature Below: -60 °F at lower pressure Safe Working Pressure: 365 psig (25 bar)

Available in both wheel and vented cap option

Available in angle and straight types

#### **Applications:**

Ammonia refrigeration system suction, liquid discharge, recalculating liquid, hot gas and oil lines, using hand wheel of seal cap models and also compressor suction, discharge connections, condenser, evaporator inlet and outlet connections in ammonia, R-22, R-134a and other approved refrigerant.







#### Inline Check Valves

Type: WSCK

Port Size: 1" thru 3" (25mm - 80mm)

Connections: Flanged

SUPERFREEZE WSCK - Series, dependable, compact and rugged in-line check valves (Non return valves) are ideally suited for refrigerant flow control applications. Valves open wide for flow in the arrow direction on the valve body. These valves close quickly and are reliable when flow reversal occurs. Plated bodies, stainless steel disc and spring enable them to withstand expected industrial refrigeration conditions.



#### **Specification**

Refrigerants: Suitable for all common refrigerants including R-717 (ammonia), R-22, R-134a, Neutral Gaseous and liquid media

Safe Working Pressure: 365 psig (25 bar)

Operating Temp.: -46  $^{\circ}$ C to +116  $^{\circ}$ C (-50  $^{\circ}$ F to +240  $^{\circ}$ F)

Compact size occupies very little space Can be installed in any position Low pressure drop

#### Safety Relief Valves

Type: SRV

SUPERFREEZE SRV - Series pressure relief valves are designed to provide emergency relief from excessive pressure in refrigerant containing vessels. These tamper-resistant valves are accurately set and sealed by qualified technicians at the factory.

Our safety valve design features the most reliable method of safely relieving pressure. The virgin Teflon seal mated with the stainless steel multiple crown ring, provide an outstanding sealing action, the combination assures a non-stick and accurate pop-off pressure release. The design incorporates special extra lift and pop-open feature for high relieving capacity.



#### **Specification**

Safe Working Pressure: 365 psig (25 bar) Maximum Temperature Rating: 116° C (240 °F) Setting Range: 150 to 350 psig (10.4 to 24 bar)



#### **Standard Sizes:**

Cat No.	Size	Inlet	Outlet
SRV 1520	15mm X 20mm	1/2" BSPT(M)	3/4" BSPT(M)
SRV 1525	15mm X 25mm	1/2" BSPT(M)	1" BSPT(M)
SRV 2020	20mm X 20mm	3/4" BSPT(M)	3/4" BSPT(M)
SRV 2025	20mm X 25mm	3/4" BSPT(M)	1" BSPT(M)
SRV 2532	25mm X 32mm	1" BSPT(M)	1 1/4" BSPT(M))



Other sizes can be supplied upon special request.





#### **Dual Relief Valve Manifold**

Type: SDM

Size: 1/2", 3/4", 1" & 11/4"

SUPERFREEZE SDM - Series in accordance with ANSI/ASHRAE 15-1994 Safety code for mechanical refrigeration, pressure vessels having 10 cubic feet or more of internal gross volume, shall be fitted with dual pressure relief valves. This is typically accomplished using a pair of pressure relief valves inter connected via a threeway dual Manifold. In this, one valve remains operational, while the other is being replaced thereby eliminating the need to remove refrigerant from the vessel.



#### **Advantages:**

Higher releasing capacity

No isolation valve required, which gives more safety to the pressure vessel with at least one relief valve in operation.

One valve can be removed for repairs at any time.





#### Strainer Valves







Port Size: 1/2" thru 12" (15mm - 300mm)

Connections: Butt Weld





Type: STA

Port Size: 1/2" thru 11/4" (15mm - 32mm)

Connections: Flanged





Port Size: 1/2" thru 6" (15mm - 150mm)

Connections: Flanged



Type: SST

Port Size: 1/2" thru 1" (15mm - 25mm)

Connections: Screwed

**SUPERFREEZE** Strainers are designed for either liquid or suction line application. They provide free flow with negligible pressure drop and can be used for a variety of liquids.

All **SUPERFREEZE** Strainers contains the maximum effective screen area. Screen assemblies are seam welded, and the ends reinforced or capped with seal rings. This construction reduces the possibility of bursting the screen assembly. The end of the screen assembly seats against the flange plate to form a tight seal, thereby preventing dirt from bypassing the strainer screen.

All cleanable strainers have an access for easy removal of the screen assembly. This facilitates cleaning and inspection without breaking the line connection.

Strainers are usually close-coupled to solenoid valves, pressure regulators and other flanged valves.

#### **Specification**

Refrigerants: R -717(Ammonia), R-12, R-22, R-134a and other common refrigerants.

Screen: Stainless Steel, 70 Mesh /40 Mesh Safe Working Pressure: 365 psig (25 bar)

#### Gauge Angle Valves

Type: SGV

Port Size: 1/2" x 3/4" (15mm x 20mm) (inlet x outlet)

Connections: Screwed ends.

**SUPERFREEZE** SGV - Series are used along with a toughened glass tube for liquid level indication in receivers and accumulators. One pair of valves are used for one set of liquid level indicator. If the glass breaks by some sudden impact, the ball inside the valves stop the refrigerant flow immediately.





#### Hand Expansion Valves



Type: SEV

Port Size: ¼" thru 1" (6mm – 25mm) for globe and angle form, screwed end. Port Size: ½" thru 2" (15mm – 50mm) for globe and angle form, flanged end.

**SUPERFREEZE** SEV - Series precision calibrated adjustable seat nut flow regulating valves (expansion valves) are ideal for metering or flashing expansion of liquid refrigerant. These slotted seat nut are more tolerant to dirt particle than tapered plug expansion. Hand wheels are of red color to distinguish them from shut-off valves. Suitable for R-717 (Ammonia), Halocarbons.



#### Flow Indicators

Type: SFI

Port Size: 1" thru 2" (25mm – 50mm) Connections: Flanged and Butt Weld.

**SUPERFREEZE** SFI - Series provides a quick, reliable and economical way to verify the flow of refrigerant in refrigeration system.

#### **Applications:**

It is suitable for R-717 (Ammonia), R-22, R-134a and also other approved refrigerants. It is used in refrigeration system pipeline.



#### Self Closing Oil Drain Valves

Type: SODV

Connection Size: 1/2" Sh 40 Butt weld with Union Nut

**SUPERFREEZE** SODV - Series quick closing oil drain valves are used for draining oil from systems containing refrigerant under pressure. The main feature of this valve is that on release of the handle the valve closes immediately, thus protecting the user from unnecessary refrigerant leaks.



Spring loaded quick closing action

Stainless steel stem



#### Reflex Glass Liquid Level Indicator

Type: SLLI

**SUPERFREEZE** SLLI - Series the unbreakable Reflex Glass Liquid Level gauge is designed for safe & positive visual indication of liquid level in vessels under high pressure & temperature conditions. The liquid chamber is one piece metal body covered by glass. The light striking the glass in the liquid portion is absorbed by the liquid where as the light striking the glass in the vapor portion is reflected making the liquid appear as black.



#### **Specification**

Suitable for all common Refrigerants including R-717 (ammonia), R-134a, R-22, neutral, gaseous & liquid media.

Tempered borosilicate glass resistant to chemical, thermal and mechanical shocks.

Large chamber for boiling, flashing or surging liquids.

Safety ball gauge valve provided.

Standard sizes available 6", 12", 18", 24", 30", 36", 42", 48", 54", 60".



#### **Flanges**



Type: SWF

Port Size: 1/2" thru 12" (15mm thru 300mm)

#### **Specification**

Suitable for all common refrigerants including R-717 (Ammonia), R-22, R-134a Safe working pressure : 365 psig (25 bar) Available with socket weld connection Tongue and Groove type

### Refrigeration Compressors

Type: SRA - Series reciprocating Compressors

#### **Specification**

	Single Stage	Double Stage
No of Cylinders	1 to 9	3 to 9
Bore & Stroke(mm)	160 X 110	160 X 110
Max. Speed	1000 RPM	1000 RPM
Swept Volume at 1000 RPM	265 to 1200 m <sup>3</sup> /Hr	265 to 930 m <sup>3</sup> /Hr

Refrigerant: R-717 (Ammonia), Halocarbon & other refrigerants

#### **Applications:**

SRA - Series reciprocating compressors are most suitable for industrial refrigeration & low temperature applications. These are ideal for continuous duty process refrigeration application in Cold & Chilled Stores, Fruit & Vegetable Cold Storage, Ice Making Plants, Sea Food Industries, Frozen Food Plants, Chemical & Pharmaceutical, Vegetable Oil Refineries, Breweries, Dairy Plants, Marine Refrigeration etc.



#### Air Cooling Units

#### Applications:

Our Air Cooling Units are best suited for Potato/ fruit/ vegetable cold storages, milk processing units and meat/ fish/ ice cream/ butter freezing units.

#### Features:

Coils made of heavy duty precision tubes and aluminum fins. The tubes are galvanized on the outside and bullet expanded with automatic machine into the fins for excellent bonding between them. Aluminum fins ensures rapid heat absorption from air. The staggered tube construction increases air turbulence at the coil to increase efficiency. VAR-FIN arrangement to reduce frosting at low temperatures.

Weather proof motors with IP-55 enclosure.

Accumulator (surge drum) to protect liquid stroke to compressor.

Arrangement for both ceiling suspension and floor mounting on every coil as standard.

Water defrosting headers for low temp. coils.

#### **Optional Features (At extra cost):**

Hot dip galvanized coil with steel tubes and steel fins. Hot gas defrosting arrangement. Drain-pan with heating coil. Custom Build coils for special applications.





"Our association with Superfreeze has been a mutually beneficial one, giving us both quality products and committed services. We are glad that we have a partner in Superfreeze."

D.B.Sonawane (Manager Purchase Engg.) Frigerio Conserva Allana Limited



"We have been using Superfreeze valves since long in many of our projects and we appreciate their commitment to prompt delivery and unwavering quality. We look forward to a long business association with them."

GG Diwan

ACR Engineering Sales & Services



"It has been an eight year long association with Superfreeze for us. They have been dependable in their services proving reliable throughout their meticulous processes. We look forward to their association in the future."

(Managing Director)

Tirumala Milk Products Pvt. Ltd.



"We have been using Superfreeze weldable flanged valves for quite some time now and their performance has always been up to the mark."

Rajesh Subramaniam IDMC Limited



"Superfreeze has provided us compressors, compressor spares, valves & fittings for over 10 years and we are very satisfied with their products and services."

**Porus Laboratories** 



"Superfreeze has supported us through their Ammonia Compressors, spares, Valves & Fittings for the past 8 years and they have delivered the finest in quality and performance all along."

**Auctus** 



"For over a decade we have been using Superfreeze ammonia valves, fittings & spares and are immensely happy with their products and services. We also appreciate their attention to quality and their adaptability to our specific requirements. It has been a great pleasure doing business with them."

Hitesh Chemicals & Drugs Pvt Ltd.



"We have been associated with Superfreeze for more than 15 years now. Their Weldable & Flanged and Screwed valves that are installed in our ice cream Plants have always given us great performance."

Pankaj Trivedi (GM Engg) **Havmor** 



"We use Superfreeze make ammonia refrigeration valves in our projects and we have always found their products and services satisfactory. We also appreciate their timely deliveries and their consistent quality. Looking forward to a long term business association with them."

Jayant Deshpande **VOLTAS** 



"The Superfreeze valves that we use for refrigeration in our projects like Parag Milk, Rich Graviss and Gomati Milk etc, have always been of the finest quality. We would like a continued business relation with Superfreeze and are appreciative of their commitment to prompt delivery and exceptional services."

**Refcon Engineering Services** 



"We have been associated with Superfreeze for well over a decade now and all we can say is that they have consistently been outstanding in their performance. Their level of understanding our business and delivering quality services is marvelous. We hope to continue this association for years to come."

(Senior Manager Engineering)
Creamline Dairy Products Ltd.



### **bekay** engineering services

"We have been acquiring Ammonia Globe Valves, Check Valves, Needle Valves & Safety Valves, for our Dairy & Food projects from Superfreeze on a continued basis & we are pleased to inform that every time, Superfreeze has only provided the highest quality of services & products. It has always been a great customer experience working with them."

B.K. Aswathnarayan **Bekay Engineering Services** 



Taking pride in the sterling contributions we make to some of the biggest names, at home...

UB Group, Pepsico, Coca-Cola, Cadburys, Nestle, Vadilal, Cipla, Kwality Wall's, Ranbaxy, AL Kabeer, Amul, Novartis, Larsen & Toubro, Thermax, Voltas, Tetra Pack, Alfa Laval, Smith Kline Beecham, Sabroe, IDMC, Blue Star, York India, Alembic, ACR, Milkfed Punjab and a whole range of other names, representing almost every conceivable domain.

















































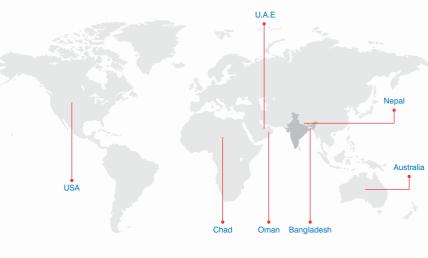






#### ...and Abroad

USA | Australia | U.A.E | Chad | Bangladesh | Nepal



Member:









#### SUPERFREEZE INDIA LIMITED

Gurgaon, Haryana (India)

 Tel:
 +91-124-4301636

 Fax:
 +91-124-4301637

 E-mail:
 sales@superfreeze.com

 Website:
 www.superfreeze.com

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