MOLE FLEXIBLE

MOLE — Connect with Confidence.

Flexible Connectors for Powder Handling

Product Catalog



Compare connector styles, sleeve materials and matching fittings for powder processing equipment.

moleflexible.com

SELECTION GUIDE

Choose by connection type

Start with both equipment interfaces. Check the available installed gap, expected movement, powder characteristics and cleaning conditions before specifying the sleeve.

Series	Equipment interface	Selection points
SF	Matching snap-in spigots	Tool-free sleeve changes. Confirm spigot size and installation clearance.
TC	Tri-clamp ferrules	Confirm fitting diameter, ferrule face and space for clamp removal.
LightTC	Lightweight molded fittings	Confirm the mating geometry and service conditions.
FLC	Round bolted flanges	Specify bore, bolt pattern and face-to-face gap.
FLR	Square bolted flanges	Provide opening size, hole layout and orientation.
HC	Plain pipe ends	Measure pipe outside diameters and available overlap.

When the ends differ

A custom connector can combine different end styles. Supply a drawing of each end and the position of both interfaces.

CONNECTOR SERIES / SF

SF Snap-In Flexible Connector

Tool-free snap-in sleeve for matching SF steel spigots.



Tool-free changes

Use on equipment already fitted with matching SF spigots, or specify weld-on SF spigots for new installations.

Available materials

PU10, PU05, PUHT, PUAS, PURF, PUFL, TE02, TE02AS, PP06, PE20

Fit and configuration

Spring steel bands and sealing rings are built into both ends. Compress each end inward, insert it into its spigot and let it spring back into place.

Custom CL lengths are available with a catalog minimum of 80 mm.

Dimension	Catalog sizes
Listed D (mm)	102, 152, 159, 204, 219, 254, 273, 304, 325, 354, 377, 404, 454, 504, 554, 604, 654, 704, 754, 804
Listed CL (mm)	100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1000

Product page: moleflexible.com/products/snap-in

CONNECTOR SERIES / TC

TC Tri-Clamp Flexible Connector

Quick-clamp sleeve with stainless steel sanitary end fittings.



Quick-release clamped connections

Use with matching ferrules on powder equipment where access for removal and cleaning is important.

Available materials

PU10, PU05, PUHT, PUAS, PURF, PUFL, TE02, TE02AS

Fit and configuration

Fit the sleeve between compatible ferrules and secure both ends with sanitary clamps. Weld matching ferrules onto the pipe ends if they are not already fitted.

Custom CL lengths are available with a catalog minimum of 100 mm.

Dimension	Catalog sizes
Listed D/C pairs (mm)	76/91; 89/106; 102/119; 104/119; 108/119; 114/130; 127/145; 133/145; 140/155; 154/183; 159/183; 168/183; 180/200; 204/217; 219/233; 254/268; 273/286; 305/319; 325/350; 356/380; 377/400; 406/430; 425/450; 457/480; 476/500; 508/530
Listed CL (mm)	100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1000

Product page: moleflexible.com/products/tri-clamp

CONNECTOR SERIES / LIGHTTC

LightTC Lightweight Tri-Clamp Flexible Connector

Quick-clamp sleeve with lightweight molded polycarbonate end fittings.



Lightweight end fittings

Consider this series for equipment where a lightweight end fitting is preferred. Confirm geometry and conditions before ordering.

Available materials

PU10, PU05, PUHT, PUAS, PURF, PUFL

Fit and configuration

Uses the TC installation method with compatible ferrules and clamps. Modified polycarbonate fittings are injection molded in one piece.

Custom CL lengths are available with a catalog minimum of 100 mm.

Dimension	Catalog sizes
Listed D/C pairs (mm)	76/91; 89/106; 102/119; 114/130; 133/145; 140/155; 152/168; 159/183; 168/183; 180/200; 204/217; 219/233; 254/268; 273/286; 305/319
Listed CL (mm)	100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1000

Product page: moleflexible.com/products/light-tc

CONNECTOR SERIES / FLC

FLC Round Flange Flexible Connector

Bolted flexible sleeve for standard round equipment interfaces.



Round bolted equipment outlets

Use between round flanged equipment. Specify the bore, bolt circle, hole count and face-to-face spacing.

Available materials

PU10, PUHT, PUAS, PURF, PUFL, TE02, TE02AS

Fit and configuration

The turned-out sleeve ends are compressed between the flange plates. The catalog describes this connector for equipment points that require reliable sealing and infrequent disassembly.

Custom dimensions to match the equipment interface.

Product page: moleflexible.com/products/flanged

CONNECTOR SERIES / FLR

FLR Square Flange Flexible Connector

Bolted flexible sleeve for square flanges and compact equipment layouts.



Square bolted equipment outlets

Use with square openings and flange interfaces. Specify opening dimensions, flange orientation and mounting holes.

Available materials

PU10, PUAS, PUHT, PURF

Fit and configuration

The square flange design accommodates closely spaced equipment. Installation follows the FLC bolted flange method.

Product page: moleflexible.com/products/square-flange

CONNECTOR SERIES / HC

HC Hose Clamp Flexible Connector

Slip-on flexible sleeve secured around the outside of plain pipe ends.



Plain tube connections

Slide the sleeve over the tube ends. Specify outside diameters, overlap and the required clamp arrangement.

Available materials

PU10, PU05, PUHT, PUAS, PURF, PUFL, TE02, TE02AS

Fit and configuration

Slip both ends over the pipe exteriors and tighten the clamps. The catalog illustrates WHC hose clamps and recommends BHC heavy-duty clamps for improved sealing.

WHC hose clamps are shown in the catalog. BHC heavy-duty clamps are recommended for improved sealing.

Catalog example: HC Φ152×200 SL/PU10

Product page: moleflexible.com/products/hose-clamp

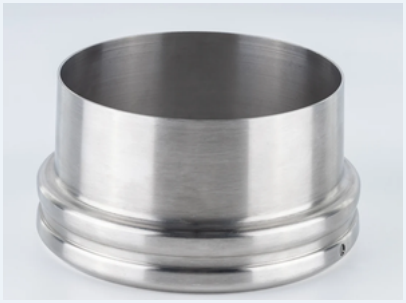
ACCESSORIES

Snap fit Spigot

Weld-on stainless steel spigots for SF snap-in sleeves. Choose 304 or 316L and confirm the mating dimensions before welding.



50 mm height



90 mm height

D: outside diameter / d: inside diameter / h: height. All dimensions in mm.

D	d	h
154	150	50
159	155	50
204	200	50
219	215	50
254	250	50
273	269	50
304	300	50
325	321	50
354	350	50
404	400	50
454	450	50
504	500	50
554	550	50
604	600	50
654	650	50
704	700	50
754	750	50
804	800	50

D	d	h
102	97	90
152	148	90
204	200	90
254	250	90
304	300	90
354	350	90

CUSTOM ASSEMBLIES AND ACCESSORIES

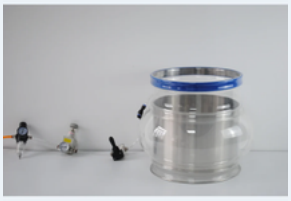
Configure the complete connection

Mix compatible end styles where equipment interfaces differ. Specify which sleeves, fittings and accessories must be supplied together.



Custom end combinations

Example shown: SF snap-in to LightTC. Round flange, square flange and hose-clamp combinations are also available.



MIBC inflatable bag clamp

Inflates around the bulk bag spout. The listed recommended maximum air pressure is 40 kPa.



End caps and breather caps

Select a cap to suit the equipment connection. HC breather caps are available.



Collection buckets

Attach to matching outlets to collect discharged material.



Ferrules and flange plates

Specify the mating TC ferrule or bolted round flange plate.



Clamps and fasteners

TC clamps and WHC or heavy-duty BHC hose clamp options.

OPERATING CONDITIONS

Materials and duty

Select the material for the actual environment. Confirm eligibility by series and verify the complete assembly limits for every application.

Requirement	Materials and configurations	What to confirm
General transfer	PU10 standard polyurethane	Connection dimensions, installed gap and powder characteristics.
High temperature	PUHT: continuous use below 150°C. TE02 / TE02AS: material limit 300°C.	Exposure duration and allowable limits for fittings and seals.
Electrostatic control	PUAS: <10■ Ω. TE02AS: <10■ Ω.	Required resistance, grounding and site electrostatic risk assessment.
Positive pressure	PURF fiber-reinforced TPU.	Operating pressure and complete assembly limits. Burst test values are not working ratings.
Vacuum and movement	PUFL steel-wire-reinforced PU; RCN high-elasticity composite for oscillation.	Vacuum level, sleeve support, full travel and installation clearance.
CIP and corrosion	PUCR10 for CIP review; TE02 / TE02AS for chemical exposure.	Chemical identity, concentration, temperature, exposure time and cleaning sequence.
Weighing and dosing	PU05 (0.5 mm) and PU03 (0.3 mm) options.	Forces transferred to the load cells and applicable connector geometry.
Docking and abrasion	PUFL for docking; internal guides or double-layer sleeves for abrasive flows.	Extended and compressed lengths; impact point and material direction.

DETAILED MATERIAL SPECIFICATIONS

Standard and functional TPU

PU10 covers general transfer. PU05 is a thinner weighing option. PUHT is for elevated temperature and PUAS for electrostatic control.

Property	PU10	PU05	PUHT	PUAS
Base material	Polyurethane	Polyurethane	Heat-resistant polyurethane	Antistatic polyurethane
Color	Clear	Clear	Clear	Clear
Thickness (mm)	1.0	0.5	1.0	1.0
Hardness	—	—	—	—
Temperature (°C)	–20 to 110	–20 to 110	–20 to 150	–20 to 110
Abrasion loss (mg)	39.0	39.0	35.0	39.0
Surface resistance (ohms)	>10^12	>10^12	>10^12	<10^9
Tensile strength (MPa)	40	10	40	15
Elongation at break (%)	600	300	600	600
Air permeable	No	No	No	No
Fabrication method	Heat welded	Heat welded	Heat welded	Heat welded

— = not listed in the supplied data. Values are material properties; confirm the allowable operating limits of the complete assembled connection.

DETAILED MATERIAL SPECIFICATIONS

Reinforced and CIP grades

PURF is fiber-reinforced. PUFL uses a helical steel wire for movement and docking. The PUCR10 datasheet lists food-contact suitability. Confirm the applicable documentation and actual cleaning cycle.

Property	PURF	PUFL	PUCR10
Base material	Fiber-reinforced polyurethane	Polyurethane with helical steel wire	CIP-resistant polyurethane
Color	White	Translucent white	Transparent
Thickness (mm)	0.8	0.6	1.0
Hardness	—	—	85 Shore A
Temperature (°C)	–20 to 110	–20 to 110	–20 to 110
Abrasion loss (mg)	39.0	35.0	39
Surface resistance (ohms)	>10^12	>10^12	>10^12
Tensile strength (MPa)	300	40	40
Elongation at break (%)	600	600	600
Air permeable	No	No	No
Fabrication method	Heat welded	Heat welded	Thermal welding

— = not listed in the supplied data. Values are material properties; confirm the allowable operating limits of the complete assembled connection.

PURF tensile strength is the value listed for the reinforced material. It does not specify the pressure rating of the finished sleeve.

DETAILED MATERIAL SPECIFICATIONS

PTFE and breathable grades

TE02 and TE02AS are PTFE grades for applications involving heat and chemical exposure. PP06 and PE20 are air-permeable materials.

Property	TE02	TE02AS	PP06	PE20
Base material	100% PTFE	100% PTFE	Polypropylene	Polyester needle felt with PT coating
Color	White	Black	White	White
Thickness (mm)	0.2	0.2	0.6	2.0
Hardness	—	—	—	—
Temperature (°C)	–40 to 300	–40 to 300	–20 to 130	–20 to 150
Abrasion loss (mg)	—	—	—	—
Surface resistance (ohms)	>10^12	<10^6	>10^12	>10^12
Tensile strength (MPa)	—	—	—	—
Elongation at break (%)	10	10	—	10
Air permeable	No	No	Yes	Yes
Fabrication method	Heat welded	Heat welded	Sewn	Sewn

— = not listed in the supplied data. Values are material properties; confirm the allowable operating limits of the complete assembled connection.

DETAILED MATERIAL SPECIFICATIONS

Special-duty sleeves

PU03 is a 0.3 mm polyurethane option for weighing. RCN is a high-elasticity rubber composite fabric for oscillating equipment.

Property	PU03	RCN
Base material	Polyurethane	High-elasticity rubber composite fabric
Color	—	—
Thickness (mm)	0.3	—
Hardness	—	—
Temperature (°C)	—	—
Abrasion loss (mg)	—	—
Surface resistance (ohms)	—	—
Tensile strength (MPa)	—	—
Elongation at break (%)	—	—
Air permeable	—	—
Fabrication method	—	—

— = not listed in the supplied data. Values are material properties; confirm the allowable operating limits of the complete assembled connection.

Metal parts

Snap fit Spigots are offered in 304 and 316L stainless steel. For ferrules and other metal parts, quote the required grade and documentation with the fitting dimensions.

APPLICATIONS

Where connectors are used

Use the application to define the interface, materials and documentation before requesting a quotation.

Food powder processing

Milk powder, flour, starch, sugar, flavors and additives. Specify contact-material documents, sealing and cleaning requirements.

Pharmaceutical powders

APIs, excipients and intermediates. Specify containment targets, cleanability and qualification documents.

Chemical processing

Fillers, pigments, catalysts, polymers and fine chemicals. Share chemical exposure, temperature, pressure and abrasiveness.

Battery materials

Lithium salts, cathode and anode powders. Define leakage criteria and restrictions for copper, zinc and other foreign material.

EPC engineering companies

Use an equipment-tagged connection schedule for silos, weigh hoppers, sifters, feeders and packaging stations.

Equipment manufacturers

Provide the mating interface drawing, movement and order volumes to align prototypes and repeat builds.



REQUEST FOR QUOTATION

What to send with your inquiry

Use the following checklist for a new installation, an OEM build or a replacement sleeve.

Equipment interfaces

Connection style, both end dimensions, and a drawing or clear photo.

Installed geometry

Installed gap, available space, misalignment and full movement or docking travel.

Process duty

Conveyed material, temperature, pressure or vacuum, abrasion and cleaning cycle.

Order and documentation

Quantity, matching fittings, delivery location, inspection and material documents.

About MOLE FLEXIBLE

MOLE supplies flexible connection solutions for powder processing to end users, EPC contractors and equipment manufacturers.

Discuss your application

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