

MASTERING FLANGE CONNECTIONS

Unlocking seamless integration and efficiency: A comprehensive guide to flange connection types, benefits, and applications



Let's Work Hand in Hand

WE GUIDE YOU TO YOUR IDEAL FLANGE SOLUTION



+ Cost-effective installation

+ Secure connections

+ Flexible drilling patterns
e.g. ANSI, DIN EN1092-1

+ Corrosion and stress cracking resistance

+ Efficient fluid transport

+ Lightweight design

Exploring Flange Connections:

TYPES, BENEFITS, AND APPLICATIONS

Stub end

for flange-flange connections

Your benefits:

- + can be combined with various freely rotatable loose flanges
- + economical



Special flange

for the connection to valves in accordance with nominal widths (no offset)

Your benefits:

- + force-fit connection
- + especially stable
- + integrated o-ring-gasket (EPDM)



Full face flange

for particularly high pressure ratings (connection dimensions are similar to stub end + loose flange)

Your benefits:

- + force-fit connection
- + especially stable
- + outer diameter is identical to flange
- + integrated o-ring-gasket (EPDM)



Outlet flange adaptors

for use with water check valves

Your benefits:

- + allows full opening of the water check valve



Blanking flange set

to complete a line while maintaining the option to extension

Your benefits:

- + Medium in the pipe only comes into contact with PE
- + reusable flange



Visit our product data base:



Here you get technical data sheets, product dimensions, and detailed drawings.

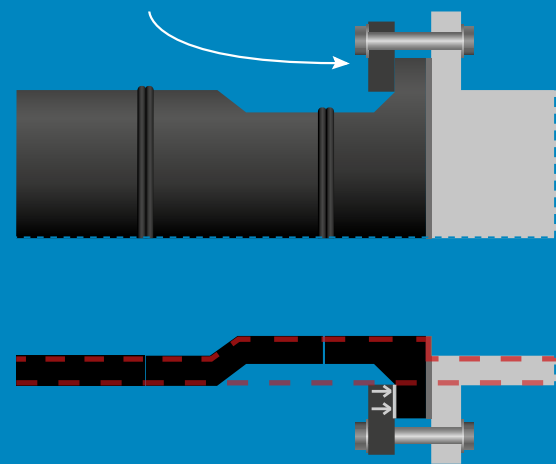
Perfect valve connection

STAR SPECIAL FLANGE

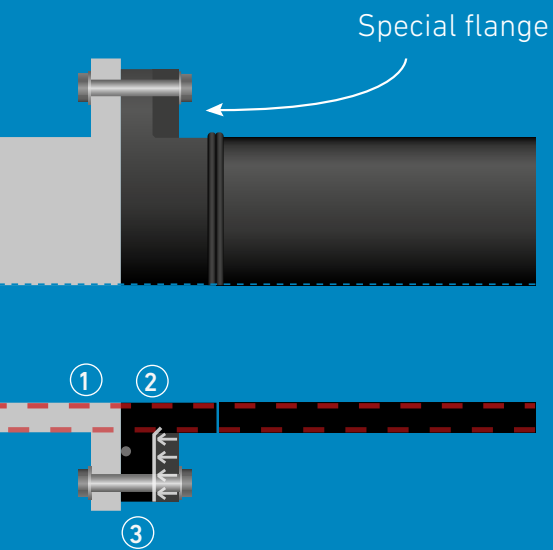
With specifically aligned dimensions for valves, the STAR special flange offers the perfect connection from PE to steel, cast iron and valves.

Conventional PE dimensions do not match the standard dimensions of steel, cast iron pipes and valves. In contrast, the STAR special flange is precisely matched in its dimensions for such connections. This makes it possible to produce a connection, which merges into one another without offset.

Stub end + loose flange



That's why using a special flange:



①
Reduced dead space
for ideal flow characteristics

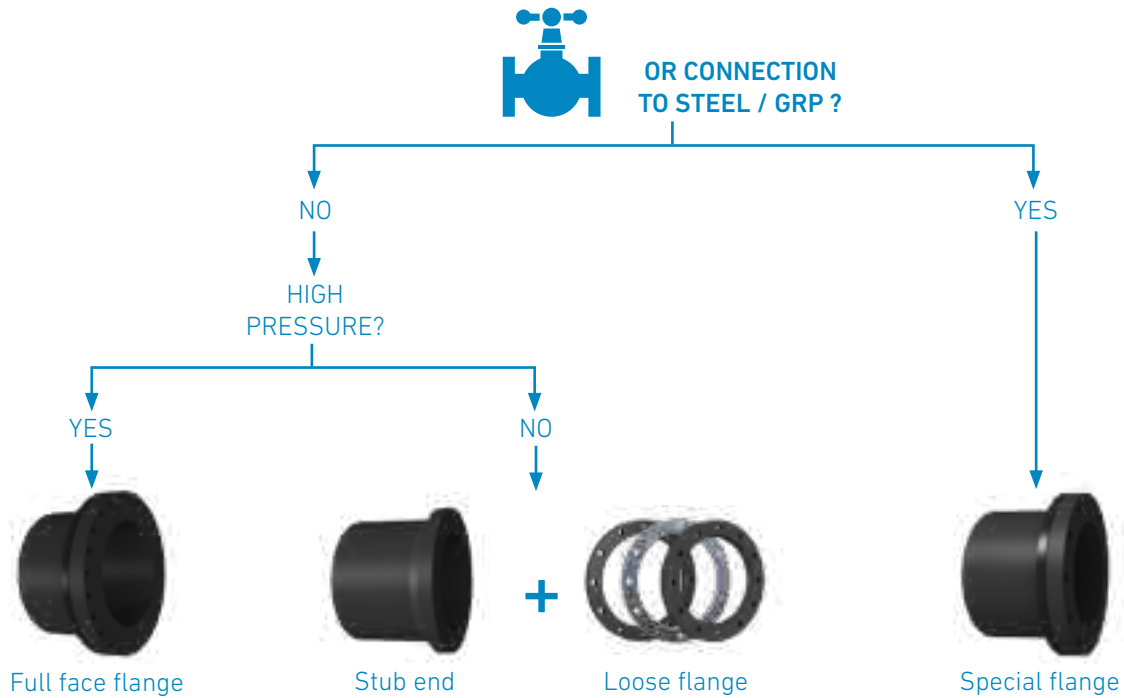
②
Connection
without offset

③
Force-fit connection
without tipping effect



Which kind of flange for which application?

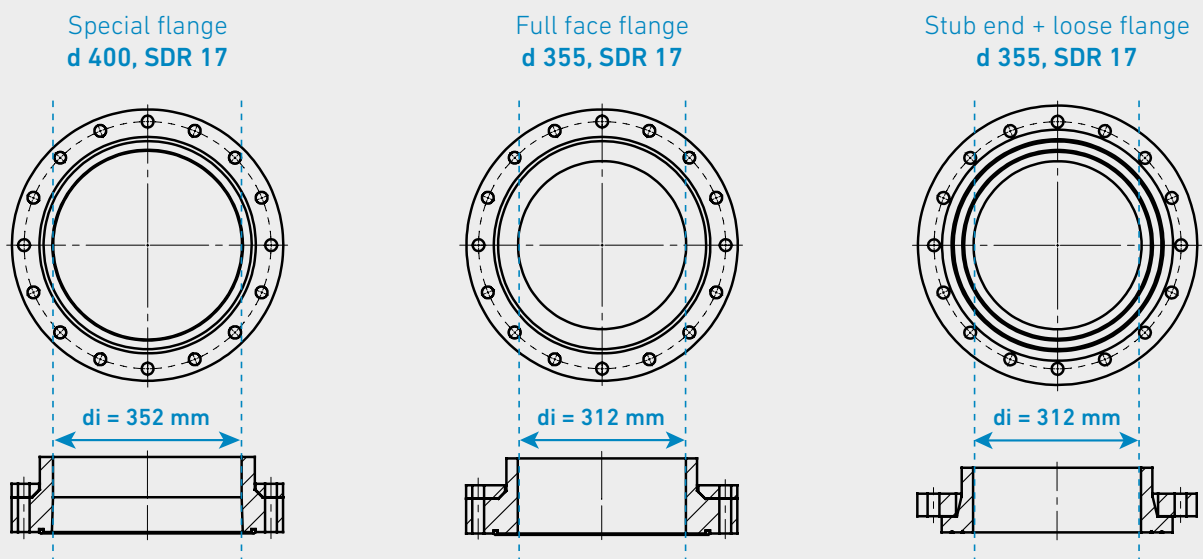
DECISION GUIDANCE



Valve	DN [mm]	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200
Special flange	d [mm]	-	90	110	140	160 180	200	250	315	355	400	450	500	560	710	800	900	1000	1200	-
Stub end + loose flange	d [mm]	63	75	90	110 125	140	160 180	200 225	250 280	315	355	400	450	450 500	560 630	710	800	900	1000	1200

Example: Special flange, full face flange and stub end with loose flange in comparison

CONNECTION TO A VALVE PN 10, DN 350






A large, cylindrical metal flange with a grid of bolts, being prepared for installation on a pipe. The background shows a construction site with gravel and concrete.

Electrofusion special flange

d 900 mm

Application:

Renovation of a service water pipeline




A large, cylindrical metal flange with a grid of bolts, installed on a pipe. The background shows a concrete structure with a circular opening.

Special flange

d 560 mm, PN 10

Application:

Installation of a pig trap



A large, cylindrical metal stub end with a grid of bolts, being prepared for installation on a pipe. The background shows a construction site with gravel and concrete.

Electrofusion stub end

d 1200 mm, SDR 17

Application:

Renovation of a wastewater pressure pipeline

Solutions you trust

THAT'S WHY STAR PIPING SYSTEMS

+ Personal advisory service

+ In-house engineering

+ Provision of planning data

+ Custom components and prefabrication

+ Comprehensive product portfolio

+ Dimensions up to d 2500 mm

+ Product expertise and technology



Material
testing



Extrusion
technology



Cutting
department



Component
fabrication



Machining
technology



Electrical
engineering

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