

## Angles 90° with female threads

up to 350 bar

Type zinc-plated steel	Type V4A (stainless steel)	Thread	PN
W 18 HD	W 18 HD ES	G 1/8"	350 bar
W 14 HD	W 14 HD ES	G 1/4"	350 bar
W 38 HD	W 38 HD ES	G 3/8"	250 bar
W 12 HD	W 12 HD ES	G 1/2"	225 bar
W 34 HD	W 34 HD ES	G 3/4"	200 bar
W 10 HD	W 10 HD ES	G 1"	160 bar
W 114 HD	W 114 HD ES	G 1 1/4"	160 bar
W 112 HD	W 112 HD ES	G 1 1/2"	160 bar
W 20 HD	---	G 2"	100 bar



## Elbow screw connections with inch threads (60° conical hose nipples)

up to 575 bar

Type zinc-plated steel	Type V4A (stainless steel)	Thread	PN*
WV 18	WV 18 ES	G 1/8"	575 bar
WV 14 <sup>1)</sup>	WV 14 ES	G 1/4"	575 bar
WV 38 <sup>1)</sup>	WV 38 ES	G 3/8"	425 bar
WV 12 <sup>1)</sup>	WV 12 ES	G 1/2"	300 bar
WV 34 <sup>1)</sup>	WV 34 ES	G 3/4"	175 bar
WV 10 <sup>1)</sup>	WV 10 ES	G 1"	150 bar
WV 114	WV 114 ES	G 1 1/4"	150 bar
WV 112	WV 112 ES	G 1 1/2"	125 bar
WV 20	WV 20 ES	G 2"	75 bar

\* the safety factor reached in tests with hydraulic oil was four-times, please ask in individual cases, <sup>1)</sup> tube construction



## Angles 45° with female threads

up to 25 bar

Type 16 bar brass	Type 10 bar AISI 316	Type 16 bar AISI 316	Type 25 bar mall. cast iron galv.	Thread
---	W 1845 ES E	W 1845 ES	---	Rp 1/8"
---	W 1445 ES E	W 1445 ES	---	Rp 1/4"
W 3845 MS	W 3845 ES E	W 3845 ES	W 3845 ST	Rp 3/8"
W 1245 MS	W 1245 ES E	W 1245 ES	W 1245 ST	Rp 1/2"
W 3445 MS	W 3445 ES E	W 3445 ES	W 3445 ST	Rp 3/4"
W 1045 MS	W 1045 ES E	W 1045 ES	W 1045 ST	Rp 1"
---	W 11445 ES E	W 11445 ES	W 11445 ST	Rp 1 1/4"
---	W 11245 ES E	W 11245 ES	W 11245 ST	Rp 1 1/2"
---	W 2045 ES E	W 2045 ES	W 2045 ST	Rp 2"
---	---	W 21245 ES	W 21245 ST	Rp 2 1/2"
---	---	W 3045 ES	W 3045 ST	Rp 3"
---	---	W 4045 ES	---	Rp 4"



## Elbows 45° with female threads

PN 25

Type malleable cast iron galv.	Thread	Type malleable cast iron galv.	Thread
BO 3845 i ST	Rp 3/8"	BO 11245 i ST	Rp 1 1/2"
BO 1245 i ST	Rp 1/2"	BO 2045 i ST	Rp 2"
BO 3445 i ST	Rp 3/4"	BO 21245 i ST	Rp 2 1/2"
BO 1045 i ST	Rp 1"	BO 3045 i ST	Rp 3"
BO 11445 i ST	Rp 1 1/4"		

type 41/G1-45°



## Threaded angles 45° PVC-U (for plastic threads only)

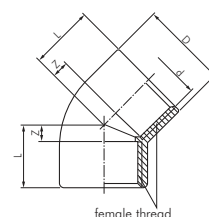
PN 10

Note: • Do not use PVC-U damaging thread sealing agents!



Warning: Not suitable for compressed air or other gases under pressure!

Type	Thread	External Ø	Installation length	Z
W 1245 PVC	Rp 1/2"	28	15.0	6.0
W 3445 PVC	Rp 3/4"	34	16.3	8.7
W 1045 PVC	Rp 1"	43	19.1	10.9
W 11445 PVC	Rp 1 1/4"	54	21.4	14.6
W 11245 PVC	Rp 1 1/2"	63	21.4	21.6
W 2045 PVC	Rp 2"	78	25.7	26.3
W 21245 PVC	Rp 2 1/2"	89	30.2	30.8
W 3045 PVC	Rp 3"	106	33.3	37.7



All data are considered to be unbinding reference values. We accept no liability for data selection that is not confirmed in writing. Pressure data refer, if not otherwise indicated, to liquids of Group II at +20°C.